

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2003135087
PUBLICATION DATE : 13-05-03

APPLICATION DATE : 05-11-01
APPLICATION NUMBER : 2001338836

APPLICANT : NISHIMURA YOSHIFUMI;

INVENTOR : NISHIMURA YOSHIFUMI;

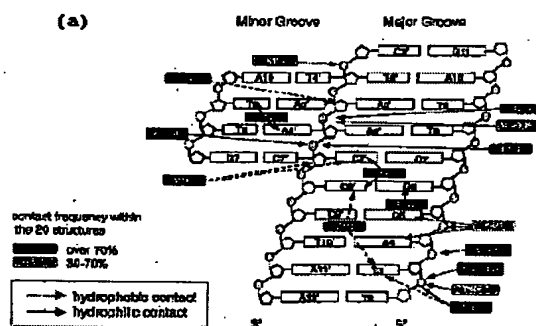
INT.CL. : C12N 15/09 C12Q 1/68 G01N 33/15
G01N 33/50 G01N 33/53 G01N 33/566

TITLE : USE OF THREE-DIMENSIONAL
STRUCTURE OF COMPLEX OF
TELOMERE DNA AND HUMAN TRF1

ABSTRACT : PROBLEM TO BE SOLVED: To provide a method for screening a useful compound by using information obtained by the analysis of a three-dimensional structure of a complex of a DNA-bonded domain and a telomere DNA of human TRF1.

SOLUTION: The method for screening a compound recognizing the region from the 4th A to the 9th T in the nucleotide sequence 5'-GTTAGGGTTAGG-3' (sequence No.1) or its complementary strand existing in a telomere DNA contains a step to analyze the three-dimensional structure of a complex of a telomere DNA and a test compound or a part of the compound.

COPYRIGHT: (C)2003,JPO



(19) 日本国特許庁 (J P)

(12) 公開特許公報 (A)

(11) 特許出願公開番号

特開2003-135087

(P2003-135087A)

(43) 公開日 平成15年5月13日 (2003.5.13)

(51) Int.Cl. ⁷	識別記号	F I	テ-マ-ト* (参考)
C 1 2 N 15/09	Z T D	C 1 2 Q 1/68	Z N A A 2 G 0 4 5
C 1 2 Q 1/68	Z N A	G 0 1 N 33/15	Z 4 B 0 2 4
G 0 1 N 33/15		33/50	Z 4 B 0 6 3
33/50		33/53	D
33/53			M

審査請求 未請求 請求項の数14 O L (全 518 頁) 最終頁に続く

(21) 出願番号 特願2001-338836(P2001-338836)

(22) 出願日 平成13年11月5日 (2001.11.5)

特許法第30条第1項適用申請有り 2001年10月6日~8日 日本生物物理学会主催の「日本生物物理学会」第39回年会講演会において文書をもって発表

(71) 出願人 501429221

西村 善文

東京都三鷹市下連雀2-20-6

(72) 発明者 西村 善文

東京都三鷹市下連雀2-20-6

(74) 代理人 100098121

弁理士 関山 世津子 (外1名)

Fターム(参考) 2G045 AA34 AA35 AA40 BA11 BB50
DA12 DA13 DA14 DA36 FB02
4B024 AA11 BA80 CA04 CA09 DA06
GA11 HA03
4B063 QA18 QR32 QR48 QR55 QS28
QS34 QX07

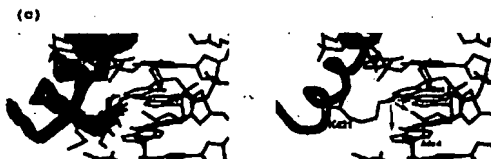
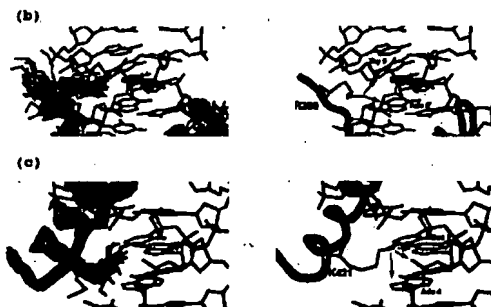
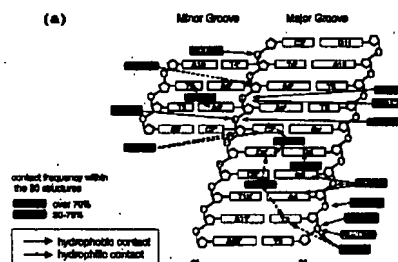
(54) 【発明の名称】 テロメアDNAとヒトTRF1複合体の立体構造の利用

(57) 【要約】

【課題】 ヒトTRF1のDNA結合ドメインとテロメアDNAの結合部位の複合体の三次元構造を解析して得られた情報を利用して、有用な化合物をスクリーニングする方法を提供すること。

【解決手段】 被験化合物又はその一部とテロメアDNAとの複合体の立体構造を調べる工程を含む、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物をスクリーニングする方法。

5'-CTTAGGTTAGG-3' (配列番号1)



【特許請求の範囲】

【請求項1】 被験化合物又はその一部とテロメアDNAとの複合体の立体構造を調べる工程を含む、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物をスクリーニングする方法。

5' -GTTAGCGTTAGG-3' (配列番号1)

【請求項2】 配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物が、下記の(i)~(ix)からなる群より選択される少なくとも1つの部位を含む請求項1記載の方法。

(i) 配列番号1のヌクレオチド配列中の4番目のA、5番目のG、及び4番目のAと5番目のGとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、(ii) 配列番号1のヌクレオチド配列中の6番目のGと水素結合を形成する相補鎖のC及び3番目のTと相互作用をする少なくとも1つの部位、(iii) 配列番号1のヌクレオチド配列中の6番目のGと相互作用をする少なくとも1つの部位、(iv) 配列番号1のヌクレオチド配列中の6番目のGと水素結合を形成する相補鎖のC及び7番目のGと水素結合を形成する相補鎖のCと相互作用をする少なくとも1つの部位、(v) 配列番号1のヌクレオチド配列中の7番目のGと水素結合を形成する相補鎖のC及びそれに結合する糖と相互作用をする少なくとも1つの部位、(vi) 配列番号1のヌクレオチド配列中の7番目のGと水素結合を形成する相補鎖のCと、8番目のTと水素結合を形成する相補鎖のAとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、(vii) 配列番号1のヌクレオチド配列中の8番目のTと水素結合を形成する相補鎖のA及び9番目のTと相互作用をする少なくとも1つの部位、(viii) 配列番号1のヌクレオチド配列中の8番目のTと水素結合を形成する相補鎖のAと、9番目のTと水素結合を形成する相補鎖のAとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、及び(ix) 配列番号1のヌクレオチド配列中の9番目のTと水素結合を形成する相補鎖のAに結合する糖と相互作用をする少なくとも1つの部位。

【請求項3】 (i)の部位がリシンであり、(ii)の部位がバリンであり、(iii)の部位がアルギニンであり、(iv)の部位がアスパラギン酸であり、(v)の部位がメチオニンであり、(vi)の部位がアルギニン及び／又はグルタミンであり、(vii)の部位がアスパラギン酸であり、(viii)の部位がアルギニン及び／又はトリプトファンであり、(ix)の部位がトレオニンである請求項2記載の方法。

【請求項4】 配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物が、さらに、下記の(x)~(xiii)からなる群より選択される少なくとも1つの部位を含む請求項2

記載の方法。(x) 配列番号1のヌクレオチド配列中の2番目のTと3番目のTとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、(xi) 配列番号1のヌクレオチド配列中の2番目のTと3番目のTとの間に存在するリン酸基と相互作用をし、3番目のTと疎水性の相互作用をする少なくとも1つの部位、(xii) 配列番号1のヌクレオチド配列中の3番目のTと4番目のAとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、及び(xiii) 配列番号1のヌクレオチド配列中の10番目のAと水素結合を形成する相補鎖のTと、11番目のGと水素結合を形成する相補鎖のCとの間に存在するリン酸基と相互作用をする少なくとも1つの部位。

【請求項5】 (x)の部位がセリンであり、(xi)の部位がセリンであり、(xii)の部位がトリプトファンであり、(xiii)の部位がリシンである請求項4記載の方法。

【請求項6】 被験化合物とテロメアDNAとの複合体の立体構造を調べ、その立体構造から、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識することが確認又は予測された化合物を製造する工程を含む、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物を製造する方法。

5' -GTTAGCGTTAGG-3' (配列番号1)

【請求項7】 被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、テロメアDNAとTRF1との結合を制御することができると判定する工程を含む、テロメアDNAとTRF1との結合を制御することができる化合物をスクリーニングする方法。

5' -GTTAGCGTTAGG-3' (配列番号1)

【請求項8】 被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、テロメアDNAとTRF1との結合を制御することができると判定し、テロメアDNAとTRF1との結合を制御することができると判定した化合物を製造する工程を含む、テロメアDNAとTRF1との結合を制御することができる化合物を製造する方法。

5' -GTTAGCGTTAGG-3' (配列番号1)

【請求項9】 被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、TRF1のアゴニストであると判定する工程を含む、TRF1のアゴニストをスクリーニングする方法。

5' -GTTAGCGTTAGG-3' (配列番号1)

【請求項10】 被験化合物がテロメアDNA中に存在する下記の新クレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するかどうかを解析し、認識する場合には、TRF1のアゴニストであると判定し、TRF1のアゴニストであると判定した化合物を製造する工程を含む、TRF1のアゴニストを製造する方法。

5' -GTTAGGTTAGG-3' (配列番号1)

【請求項11】 被験化合物がテロメアDNA中に存在する下記の新クレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するかどうかを解析し、認識する場合には、TRF1のアンタゴニストであると判定する工程を含む、TRF1のアンタゴニストをスクリーニングする方法。

5' -GTTAGGTTAGG-3' (配列番号1)

【請求項12】 被験化合物がテロメアDNA中に存在する下記の新クレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するかどうかを解析し、認識する場合には、TRF1のアンタゴニストであると判定し、TRF1のアンタゴニストであると判定した化合物を製造する工程を含む、TRF1のアンタゴニストを製造する方法。

5' -GTTAGGTTAGG-3' (配列番号1)

【請求項13】 表2及び／又は3のヒトTRF1の一部の3次元構造座標の全部又は一部を記録しているコンピュータ読み取り可能な記録媒体。

【請求項14】 表2及び／又は3のヒトTRF1の一部の3次元構造座標の全部又は一部を利用して、テロメアDNAと結合する化合物を同定、検索、評価又は設計する方法。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は、テロメアDNAとヒトTRF1複合体の立体構造の利用に関し、より詳細には、テロメアDNAとヒトTRF1複合体の立体構造を利用して、テロメアDNAと結合することができる化合物をスクリーニングする方法、テロメアDNAとTRF1 (telomeric repeat binding factor 1)との結合を制御することができる化合物をスクリーニングする方法、TRF1のアゴニストをスクリーニングする方法、TRF1のアンタゴニストをスクリーニングする方法、前記の化合物を製造する方法、テロメアDNAに結合又は未結合のヒトTRF1の3次元構造座標を記録しているコンピュータ読み取り可能な記録媒体、テロメアDNAに結合又は未結合のヒトTRF1の3次元構造座標を利用して、テロメアDNAと結合する化合物を同定、検索、評価又は設計する方法、並びにヒトTRF1タンパク質断片及びその変異体に関する。

【0002】

【従来の技術】テロメアはタンパク質／DNA複合体の

構造であり、真核生物の線状の染色体の物理的末端を作っており、染色体の安定性に不可欠である。テロメアは、分解や末端から末端への融合から染色体の末端を保護している。ほとんどの真核生物では、テロメアは二重鎖のタンデムに繰り返したTGに富む配列（普通は5～8塩基対の長さである）の二重鎖のDNAからなっていて、その後3'末端に1本鎖のDNAが飛び出している (Blackburn, 1992 and 1994; Zakian, 1995)。テロメアDNAの二重鎖のDNAの繰り返し配列に特異的なタンパク質が結合する。例えば、出芽酵母のRap1、分裂酵母のTaz1p、コメのRTBP1、脊椎動物で見つかったTRF1およびTRF2 (Shore and Nasmyth, 1987; Klein et al., 1992; Cooper et al., 1997; Yu et al., 2000; Chong et al., 1995; Billaud et al., 1997; Broccoli et al., 1997)がある。これらのテロメアタンパク質はテロメアの長さを負に制御しているという重要な役割を持っていて (Krauskopf and Blackburn, 1996; Cooper et al., 1997; van Steensel and de Lang, 1997; Smogorzewska et al., 2000)、お互いに構造的に関係している。その構造的に関係しているというのは、少なくとも一つのMybドメインをDNA結合ドメインの中に持っている (Konig and Rhodes, 1997; Brun et al., 1997; Yu et al., 2000)。

【0003】脊椎動物のTRF1、すなわち、TTAGGG繰り返し結合因子1は、3つの機能ドメインを持っている。N末の酸性ドメイン、中央のTRF特異的／二量体ドメイン (Bianchi et al., 1997)、そしてC末のDNA結合ドメイン (Chong et al., 1995)。TRF1のDNA結合ドメインは、その配列で転写活性化因子のc-Myb (Chong et al., 1995)のDNA結合ドメイン中に存在するMybリピートに関係している。TRF1は一つのMybドメインを含んでいるが、DNAに結合するときには二量体で結合する。c-MybのDNA結合ドメインは不完全にタンデムなMybリピートが3つ繰り返しており、R1、R2、R3と呼ばれている (Lipsick 1996; Martin and Paz-Ares, 1997を参照のこと)。TRF1のMybドメインが存在することは、NMRで、ヒトTRF1からとってきたMybドメインの三次元構造を決定することで確認された (Nishikawa et al., 1998)。期待された通り、それはc-Mybに存在する3つのMybリピート (Ogata et al., 1992 and 1995)の各々と構造的に非常に近くて、3つのヘリックスを持っている。Mybドメインの3つのヘリックスの中で、2番目と3番目のヘリックスがヘリックス-ターン-ヘリックス (HTH) モチーフの変異体になっている。c-Mybの配列特異的なDNA結合は、R2とR3が必要で十分であるが、R1はDNA結合においては特に何の役割も持っていない (Tanikawa et al., 1993; Ogata et al., 1995)。

【0004】今日まで、テロメアタンパク質が二重鎖DNAをどのように認識しているのかという情報は、出芽酵母 *Saccharomyces cerevisiae* のRap1pのDNA結合ドメイン

の結晶構造から得られている。それは、テロメアDNA結合部位との複合体の構造として得られている (Konig et al., 1996; Taylor et al., 2000)。その構造から、アミノ酸配列は他の公知のDNA結合ドメインとの類似性は全くないにもかかわらず、Rap1pのDNA結合ドメインは2つの構造的によく似たサブドメインD1及びD2からなっている。これらのサブドメインは構造的にMybリピートやホメオドメインと非常によく似ている (Konig et al., 1996)。Mybリピートとホメオドメインは2つともHTH DNA結合モチーフのスーパーファミリーに属しているが、DNAの結合様式は少し異なる。DNAの大きな溝でHTHモチーフが特異的に認識して、DNAの小さな溝でN末端の腕が認識しているという認識様式は、ホメオドメインのように2つのサブドメインのRap1pがDNAに結合している様式に似ている。2つのサブドメインは非常に長いリンカー（鎖）でつながれていて、各々のサブドメインはコアの配列TGTGGを認識している。それは、8塩基対離れていて、DNA上でタンデムに配向している。それに比べて、c-Mybの最小のDNA結合ドメインとDNAとの複合体では、R2とR3はDNAの大きな溝に密にパックされている。そして、短い共通の結合配列であるTAACNGを協調的に認識している (Ogata et al., 1994)。それに対して、TRF1は一つのMybドメインをそのC末端に持っており、中央のTRF特異的/二量化ドメインで安定なホモの二量体を形成し、2つのMybドメインをDNA上に同時に配置するが、その時に協調性は全く見られない (Bianchi et al., 1999)。c-MybのMybドメイン単独ではDNAを配列特異的に結合するには不十分である (Tanikawa et al., 1993) が、TRF1の単離した一つのMybドメインは試験管内でヒトテロメアの二重鎖DNAと非常に強く結合することができる (Konig et al., 1998)。

【0005】

【発明が解決しようとする課題】本発明は、ヒトTRF1のDNA結合ドメインとテロメアDNAの結合部位の複合体の三次元構造を解析することを目的とする。

【0006】また、本発明は、ヒトTRF1のDNA結合ドメインとテロメアDNAの結合部位の複合体の三次元構造を解析して得られた情報を利用して、有用な化合物をスクリーニングする方法を提供することも目的とする。

【0007】

【課題を解決するための手段】本発明者らは、ヒトTRF1のDNA結合ドメインとテロメアDNAの結合部位の複合体の三次元構造をNMRを用いて決定した。構造上最も新規な点は、HTHモチーフのDNA認識ヘリックスによって、DNAの大きな溝で認識しているのに加えて、N末端の腕がDNA結合に伴って規則的になって、DNA結合表面を伸ばして、DNAの小さな溝で塩基を認識していることである。この結合様式は、ホメオドメインやRap1pの2つのサブドメインで見られているのに似ているが、タンパク質の構造が少し違うので、TRF1のDNA結合ドメインのDNA上で

の空間的配置が若干異なっている。大きな溝で3つのヘリックスが配置している様子は、c-Mybリピートの配置 (Ogata et al., 1994) と非常に似ていて、Rap1pのサブドメイン (Konig et al., 1996) やこれまで調べられているホメオドメインの配置 (Gehring et al., 1994) とは異なっている。さらに、各々の塩基対がDNA認識にどのように寄与しているかということを用いて調べた。また、沢山のDNA変異体も用いて調べた。また、モデル構築によって、TRF1はAGGGTT配列がヒトテロメア中で繰り返しタンデムに並んでいるのを連続的に、しかも全く空間的に障害なく結合できることがわかった。本発明は、上記の知見により完成されたものである。

【0008】すなわち、本発明は、被験化合物又はその一部とテロメアDNAとの複合体の立体構造を調べる工程を含む、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物をスクリーニングする方法を提供する。

5' -GTTAGGGTTAGG-3' (配列番号1)

被験化合物は、テロメアDNAと複合体を形成しうるいかなる化合物であってもよく、タンパク質、ペプチド、多糖、オリゴ糖、単糖、低分子化合物、核酸 (DNA、RNA、オリゴヌクレオチド、モノヌクレオチド等) などを例示することができる。

【0009】本明細書において、「テロメアDNA」とは、真核生物の染色体の末端に存在するDNAのことをいう。テロメアDNAは、Gに富んだ特異的な配列で哺乳類ではTTAGGGの繰り返し配列からなる。テロメアDNAは3'末端を除いて二重らせんを形成している。テロメアDNAの一部は化学合成できる。

【0010】被験化合物とテロメアDNAとの複合体の立体構造を調べるには、X線結晶構造解析、核磁気共鳴 (NMR)、中性子回折などによる原子レベルでの立体構造解析や電子顕微鏡、原子間力顕微鏡などによる複合体の形状を観察する方法やテロメアDNAの公知の立体構造に対する任意の構造の被験化合物との安定な結合様式をコンピュータでシミュレートするドッキングスタディなどの手法を用いることができる。

【0011】被験化合物が高分子 (例えば、タンパク質) などの場合、その一部 (例えば、タンパク質断片) とテロメアDNAとの複合体の立体構造を調べてもよい。

【0012】本明細書において、「認識」とは、2つの物質の間の結合を意味する。

【0013】配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物は、テロメアDNAとTRF1との結合を制御することができるかもしれないので、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理

活性を持つことが予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0014】配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物は、TRF1と同じ生理活性、例えば、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことも予想される。そうであれば、上記の化合物は抗がん剤、細胞老化抑制剤、細胞老

化促進剤等に利用することができる。

【0015】あるいはまた、配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物は、TRF1の生理活性を減少ないし消失させる生理活性を持つことも予想される。そうであれば、上記の化合物は、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことも予想される。そうであれば、上記の化合物は抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用す

ることができる。

【0016】配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物は、下記の(i)~(ix)からなる群より選択される少なくとも1つの部位を含むとよい。

(i) 配列番号1のヌクレオチド配列中の4番目のA、5番目のG、及び4番目のAと5番目のGとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、(ii) 配列番号1のヌクレオチド配列中の6番目のGと水素結合を形成する相補鎖のC及び3番目のTと相互作用をする少なくとも1つの部位、(iii) 配列番号1のヌクレオチド配列中の6番目のGと相互作用をする少なくとも1つの部位、(iv) 配列番号1のヌクレオチド配列中の6番目のGと水素結合を形成する相補鎖のC及び7番目のGと水素結合を形成する相補鎖のCと相互作用をする少なくとも1つの部位、(v) 配列番号1のヌクレオチド配列中の7番目のGと水素結合を形成する相補鎖のC及びそれに結合する糖と相互作用をする少なくとも1つの部位、(vi) 配列番号1のヌクレオチド配列中の7番目のGと水素結合を形成する相補鎖のCと、8番目のTと水素結合を形成する相補鎖のAとの間に存在するリン酸基と(親水性の)相互作用をする少なくとも1つの部位、(vii) 配列番号1のヌクレオチド配列中の8番目のTと水素結合を形成する相補鎖のA及び9番目のTと相互作用をする少なくとも1つの部位、(viii) 配列番号1のヌクレオチド配列中の8番目のTと水素結合を形成する相補鎖のAと、9番目のTと水素結合を形成する相補鎖のAとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、及び(ix) 配列番号1のヌクレオチド配列中の9番目のTと水素結合を形成する相補鎖の

Aに結合する糖と相互作用をする少なくとも1つの部位。

【0017】上記の「部位」とは、一つの分子中の一部分構造であり、例えば、アミノ酸残基、官能基、塩基などを例示することができる。

【0018】上記の「相互作用」とは、2つ以上の物体(例えば、原子、分子)の間に力が働きあうことをいう。相互作用としては、親水性の相互作用(例えば、水素結合、塩橋)、疎水性の相互作用(例えば、疎水結合)、静電相互作用、ファンデルワールス相互作用などを例示することができる。

【0019】(i)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(i)の部位として、リシンを例示することができる。

【0020】(ii)の相互作用は、疎水性の相互作用であるのが好ましい。その場合、(ii)の部位として、バリンを例示することができる。

【0021】(iii)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(iii)の部位として、アルギニンを例示することができる。

【0022】(iv)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(iv)の部位として、アスパラギン酸を例示することができる。

【0023】(v)の相互作用は、疎水性の相互作用であるのが好ましい。その場合、(v)の部位として、メチオニンを例示することができる。

【0024】(vi)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(vi)の部位として、アルギニン及び/又はグルタミンを例示することができる。

【0025】(vii)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(vii)の部位として、アスパラギン酸を例示することができる。

【0026】(viii)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(viii)の部位として、アルギニン及び/又はトリプトファンを例示することができる。

【0027】(ix)の相互作用は、疎水性の相互作用であるのが好ましい。その場合、(ix)の部位として、トレオニンを例示することができる。

【0028】配列番号1のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物は、さらに、下記の(x)~(xiii)からなる群より選択される少なくとも1つの部位を含むとよい。

(x) 配列番号1のヌクレオチド配列中の2番目のTと3番目のTとの間に存在するリン酸基と相互作用をする少なくとも1つの部位、(xi) 配列番号1のヌクレオチド配列中の2番目のTと3番目のTとの間に存在するリン酸基と相互作用をし、3番目のTと疎水性の相互作用をする少なくとも1つの部位、(xii) 配列番号1のヌクレオチド配列中の3番目のTと4番目のAとの間に存在す

るリン酸基と相互作用をする少なくとも1つの部位、及び(xiii) 配列番号1のヌクレオチド配列中の10番目のAと水素結合を形成する相補鎖のTと、11番目のGと水素結合を形成する相補鎖のCとの間に存在するリン酸基と相互作用をする少なくとも1つの部位。

【0029】(x)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(x)の部位として、セリンを例示することができる。

【0030】(xi)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(i)の部位として、セリンを例示することができる。

【0031】(xii)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(xii)の部位として、トリプトファンを例示することができる。

【0032】(xiii)の相互作用は、親水性の相互作用であるのが好ましい。その場合、(xiii)の部位として、リシンを例示することができる。

【0033】また、本発明は、被験化合物とテロメアDNAとの複合体の立体構造を調べ、その立体構造から、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識することが確認又は予測された化合物を製造する工程を含む、テロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物を製造する方法を提供する。

5' -GTTAGGCTTAGG-3' (配列番号1)

テロメアDNA中に存在する上記のヌクレオチド配列(配列番号1)配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識する化合物を製造するには、公知の方法、すなわち、化学的合成法、遺伝子工学的な方法、酵素工学的な方法などのいずれの方法を用いてもよい。

【0034】さらに、本発明は、被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、テロメアDNAとTRF1との結合を制御することができると判定する工程を含む、テロメアDNAとTRF1との結合を制御することができる化合物をスクリーニングする方法を提供する。

5' -GTTAGGCTTAGG-3' (配列番号1)

本明細書において、「TRF1」とは、TTAGGGリピート結合因子1またはテロメアリピート結合因子1をいう。TRF1は、脊椎動物の染色体末端に存在すると考えられていて少なくともヒトやマウスで同定されている。TRF1はN末端部位に酸性アミノ酸に富む領域、中央部に二量体形成に必要な領域、C末端部位にDNA結合に必要な領域からなる。TRF1はテロメアDNAに結合してテロメラーゼ酵素の活性を制御している。テロメラ

ーゼはテロメアDNA合成酵素で生殖細胞やがん細胞で活性化されている。通常の体細胞ではテロメラーゼ酵素の活性は抑制されているのでテロメアDNA細胞分裂ごとに短縮するのでテロメアDNAの長さは細胞老化のマーカである。TRF1はテロメラーゼの酵素活性の制御を通じて細胞老化やがん化の制御に関連すると考えられる。ヒトTRF1のアミノ酸配列はChong, L., van Steensel, B., Broccoli, D., Erdjument-Bromage, H., Hanish, J., Tempst, P., and de Lange, T. (1995). A human telomeric protein. Science 270, 1663-1667.に記載されている。

【0035】被験化合物がテロメアDNA中に存在する上記のヌクレオチド配列(配列番号1)配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析するには、X線結晶構造解析、核磁気共鳴(NMR)、中性子回折などの立体構造解析、電子顕微鏡や原子間力顕微鏡などの複合体の形状を観察する方法やテロメアDNAの公知の立体構造に対する任意の構造の被験化合物との安定な結合様式をコンピュータでシミュレートするドッキングスタディなどの手法、本発明者らがこの明細書において開示するヒトTRF1の立体構造との類似性に基づく判断を用いることができる。

【0036】テロメアDNAとTRF1との結合を制御することができる化合物は、テロメアDNAとTRF1との結合を制御することができるかもしれないので、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことが予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0037】本発明は、また、被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、テロメアDNAとTRF1との結合を制御することができると判定し、テロメアDNAとTRF1との結合を制御することができると判定した化合物を製造する工程を含む、テロメアDNAとTRF1との結合を制御することができる化合物を製造する方法を提供する。

5' -GTTAGGCTTAGG-3' (配列番号1)

テロメアDNAとTRF1との結合を制御することができる化合物を製造するには、公知の方法、すなわち、化学的合成法、遺伝子工学的な方法、酵素工学的な方法などのいずれの方法を用いてもよい。

【0038】本発明は、また、被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、TRF1のアゴニストであると判定する工程を含む、TRF1のアゴニストをスクリーニングする方法を提供する。

5'-GTTAGCGTTAGG-3' (配列番号1)

本明細書において、「TRF1のアゴニスト」とは、TRF1のテロメアDNAに対する結合親和性及び/又はTRF1の生理活性と同質のものを有する物質をいう。

【0039】TRF1のアゴニストは、TRF1と同じ生理活性、例えば、テロメアDNAとTRF1との結合を制御することができるかもしれないので、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことが予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0040】本発明は、また、被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、TRF1のアゴニストであると判定し、TRF1のアゴニストであると判定した化合物を製造する工程を含む、TRF1のアゴニストを製造する方法を提供する。

5'-GTTAGCGTTAGG-3' (配列番号1)

TRF1のアゴニストを製造するには、公知の方法、すなわち、化学的合成法、遺伝子工学的な方法、酵素工学的な方法などのいずれの方法を用いてもよい。

【0041】本発明は、また、被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、TRF1のアンタゴニストであると判定する工程を含む、TRF1のアンタゴニストをスクリーニングする方法を提供する。

5'-GTTAGCGTTAGG-3' (配列番号1)

本明細書において、「TRF1のアンタゴニスト」とは、TRF1のテロメアDNAに対する結合親和性及び/又はTRF1の生理活性を減少ないし消失させる生理活性を持つ物質をいう。TRF1のアンタゴニストは、テロメアDNAとTRF1との結合を制御することができるかもしれないので、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことが予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0042】本発明は、また、被験化合物がテロメアDNA中に存在する下記のヌクレオチド配列中の4番目のAから9番目のTまでの部位またはその相補鎖を認識するか否かを解析し、認識する場合には、TRF1のアンタゴニストであると判定し、TRF1のアンタゴニストであると判定した化合物を製造する工程を含む、TRF1のアンタゴニストを製造する方法を提供する。

5'-GTTAGCGTTAGG-3' (配列番号1)

TRF1のアンタゴニストを製造するには、公知の方

法、すなわち、化学的合成法、遺伝子工学的な方法、酵素工学的な方法などのいずれの方法を用いてもよい。

【0043】本発明は、表2及び/又は3のヒトTRF1の一部の3次元構造座標の全部又は一部を記録しているコンピュータ読み取り可能な記録媒体も提供する。

【0044】表2及び/又は3には、TRF1のアミノ酸配列中の371番目のトレオニンから429番目のリシンまでのアミノ酸配列からなる、ヒトTRF1のDNA結合ドメインの3次元構造の座標およびその平均構造の座標が示されている。

【0045】コンピュータ読み取り可能な記録媒体としては、磁気テープ、カセットテープ、フレキシブルディスク、ハードディスク、CD-ROM、MO/MD/DVD、半導体メモリなどを例示することができる。

【0046】さらに、本発明は、表2及び/又は3のヒトTRF1の一部の3次元構造座標の全部又は一部を利用して、テロメアDNAと結合する化合物を同定、検索、評価又は設計する方法を提供する。

【0047】3次元構造をコンピュータ上で例えばSYBYLソフトウェアで視覚化しその形状や相互作用の詳細を見ることによって形状と相互作用を真似た別の化合物を同定し、また化合物のライブラリーからTRF1とテロメアDNA複合体の結合を変化させる可能性のある化合物をコンピュータ上で検索し、結合が強くなるか弱くなるかを評価し設計することが可能である。テロメアDNAと結合する化合物は、テロメアDNAとTRF1との結合を制御することができるかもしれないので、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことが予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0048】テロメアDNAと結合する化合物は、TRF1と同じ生理活性、例えば、テロメアDNAとTRF1との結合を制御することができるかもしれないので、細胞の老化を進めたりあるいは逆に遅らせたりする活性、細胞のがん化を遅らせる活性、がん細胞の細胞死を進めるような生理活性を持つことが予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0049】あるいはまた、テロメアDNAと結合する化合物は、TRF1の生理活性を減少ないし消失させる生理活性を持つことも予想される。そうであれば、上記の化合物は、抗がん剤、細胞老化抑制剤、細胞老化促進剤等に利用することができる。

【0050】

【発明の実施の形態】

【実施例】以下、本発明を実施例及び比較例によって具体的に説明する。なお、これらの実施例は、本発明を説明するためのものであって、本発明の範囲を限定するも

のではない。

【0051】結果と議論

構造決定

ヒトTRF1のDNA結合ドメインとテロメアDNA結合部位との複合体の溶液構造を通常の多次元異核NMR法で決定した。ヒトTRF1のアミノ酸371番-439番(図1A)からなるDNA結合ドメインは、そのN末端にメチオニンをつけて、¹⁵Nまたは¹⁵N/¹³Cでラベルして大腸菌内で発現させた。このタンパク質は、我々が以前に構造決定に用いたもの(378番-430番の残基; Nishikawa et al., 1998)よりも若干長いので、DNAに結合していないタンパク質の構造も決定した。DNAとの複合体には、13merのDNA二量体で、配列は5'-GTTAGGGTTAGGG-3'(配列番号2)で、TRF1 Mybドメインの結合部位の一つを持っているもの(Konig et al., 1998)を使った。DNA結合状態とDNAに結合していない状態で、各々20個と25個の構造をプログラムEMBOSS(Nakai et al., 1993)を用いて4次元(4D)のシュミレーテッドアニーリング法で、各々1341個と916個の実験で得られた制限を使って決定した。それらの結果は表1にまとめた。図2(a)は、TRF1 MybドメインとDNAとの複合体の20個の計算構造を示している。計算した構造は、距離制限に関して0.3オングストローム以上はずれたものはなく、角度制限に関して5°以上離れたものはなかった。骨格のコンフォメーションは、今回の計算で非常によく決まっているが、N末端の9アミノ酸とC末端の6アミノ酸ではそうではなかった。それらは、NOEの数が少なく、そのため、非常に柔らかいと考えられる。20個の構造とその平均構造との間の全体としての根二乗平均(rms)偏差は、骨格の原子に対して0.65±0.04オングストロームであり、アミノ酸残基のすべての重原子に対して0.97±0.06オングストロームである。それは、アミノ酸残基Arg 380-Lys 429、DNA塩基対G1-G11とその相手方のC3'-C13'での間の計算であった。図2(b)は、DNA複合体中でタンパク質部分のみの20個の計算結果を示している。DNA結合状態の20個の計算構造と平均構造との全体としての根二乗平均偏差は、骨格の原子に関して0.50±0.06オングストロームであり、アミノ酸残基のすべての重原子に関して1.12±0.09オングストロームであり、その計算結果は、Arg380番-Lys429番の間で行われた。

【0052】図2(c)は、DNAに結合していない状態の25個の計算構造を示す。計算構造は、距離の制限に関してすべて0.3オングストローム以内で、角度の制限に関してすべて2°以内である。骨格のコンフォメーションは、N末端の12アミノ酸、C末端の6アミノ酸を除いて非常によく決まった。これらのN末端およびC末端のアミノ酸は十分なNOEを持っていなかった。25個の計算した構造と平均構造の全体としてのrms偏差は、骨格構造に関して0.46±0.05オングストロームであり、アミノ酸残基Trp383番-Lys429番のすべての重原子に関し

て1.06±0.05オングストロームであった。DNAに結合していない状態の構造は、既に我々がもっと短いタンパク質で決めた構造(Nishikawa et al., (1998))と本質的には全く同じである。

DNA結合によってN末端の腕は固くなる

DNA結合状態およびDNAに結合していない状態のTRF1のDNA結合ドメインは両方とも、3つのヘリックス領域を持っていて、1番目のヘリックスはTrp385番-Tyr398番、2番目のヘリックスはTrp403番-His409番、3番目のヘリックスはSer417番-Lys429番であり、それにとまって2つのターンがあり、1番目のターンはGly399番-Asn402番、2番目のターンはTyr410番-Thr416番であり、Leu430番-Ile433番の構造はヘリカルターンの構造をとっており、それで3番目のヘリックスのC末端に直接結合している。この3つのヘリックスは以下のアミノ酸で形成されている疎水性のコアで維持されている。そのアミノ酸は、Trp 383番、Leu391番、Val 395番、Trp 403番、Ile 406番、Phe 412番、Leu 420番、Arg 423番、Trp 424番、Met 427番、及び2つの塩橋(Glu 387番-Arg 417番およびAsp 388番-Arg 423番によって形成される塩橋)によって維持されている。2番目と3番目のヘリックスはHTHモチーフの変異体を構成しており、典型的なHTHタンパク質中のターンに比較すると、3残基長いターンで構成されている。DNA結合及びDNAに結合していない状態のDNA結合ドメインの全体の構造は、お互いに非常によく似ていて、Trp 383番-Lys 429番のアミノ酸の骨格の原子について、rmsは0.89オングストロームであった。2つの構造の最も驚くべき違いは、N末端の腕のコンフォメーションで見つかっている。それは、DNA結合状態のアミノ酸Arg 378番-Ala 382番が、DNAに結合していない状態に比べてかなりはっきりしたコンフォメーションをとっている。そして、DNA結合に伴って規則的な構造になっている。前にも述べたように、TRF1 DNA結合ドメインのDNA結合状態と非結合状態の構造の比較から、3つのヘリックスの束Trp 383番-Lys 429番の高次構造はお互いにほとんど同一であるが、N末端とC末端のいくつかの残基は、構造的にそれから運動的な変化がDNA結合に伴って見られた。図2(d)は、¹H-¹⁵N異核種のNOEの測定によって示されている主鎖の動的構造を示している。これらの測定から、N末端のアミノ酸Arg 378番-Ala 382番は、DNAに結合していないときには非常に柔らかくて、不規則な構造をとっているが、DNA結合に伴って、より固いコンフォメーションに変化している。それは、Arg 380番がDNAの小さな溝でTT配列を認識していて、その隣のアミノ酸のGln 381番とTrp 383番がDNAの糖-リン酸骨格と相互作用している。N末端ほど劇的ではないが、C末端のいくつかのアミノ酸Leu 430番-Ile 433番もDNA結合に伴ってやはり安定化される。さらに、DNAに結合した状態では、ほとんどすべてのアミノ酸が強い異核種のNOEを示しているため、全体とし

て、DNA結合ドメインはDNA結合によって安定化していると考えられる。

【0053】TRF1によるテロメアDNAの認識

TRF1のDNA結合ドメインがDNAの配列を特異的に認識するのは、3番目のヘリックス（いわゆる、「DNA認識ヘリックス」）をDNAの大きな溝に配置して、N末端の腕が糖-リン酸骨格を横切って、DNAの小さな溝で特異的に接触することに起因する（図2（a））。それで、配列TAGGGTTを認識する。図3（a）は、TRF1のDNA結合ドメインのDNA認識に関わる相互作用をまとめて示している。DNAの大きな溝で、3番目のT(T3)のメチル基は、Val 418番のメチル基の一つにより認識されている。また、Ser 417番のメチレン基によっても認識されている。A4とG5はLys 421番によって認識されているようだ。G6の7位の窒素原子とC=O原子は、Arg 425番のグアニジノ基との水素結合によって認識されている。Asp 422番は、G7の相手方のC7'とG6の相手方のC8'の両方のアミノ基と相互作用しているようだ。Met 419番のメチル基は、Val 418番のメチル基の一つ及びAsp 422番のメチレン基と一緒に、疎水的な群れをつくって、DNAとの間に存在している。そして、C7'及びC8'の塩基並びにC7'の骨格の糖と相互作用している。DNAの小さな溝では、Arg 380番がT9のO'原子及びA6'（T8の相手の原子）のN'原子と相互作用している。それは、図3（b）に示した。この小さな溝での認識は、ホメオドメインを思わせ、さらに、Rap1pのサブドメイン（Konig et al., 1996; Taylor et al., 2000）をも思わせる。ホメオドメインでは、一つのアルギニンがDNAの小さな溝でATに富む配列を認識している。例えば、TT配列はMat α 2で認識され（Wolberger et al., 1991）、TT配列はUbxホメオドメインで認識され（Passner et al., 1999）、TA配列はエンゲイルドホメオドメインで認識され（Kissinger et al., 1990）、AT配列はペアドボックスホメオドメインで認識される（Wilson et al., 1995）。Rap1pでは、各々のサブドメイン中の一つのリジンがアデニンと相互作用している。さらに、TRF1のDNA結合ドメインは沢山の非特異的な疎水的そして静電的／水素結合的な相互作用をDNAの骨格の糖やリン酸基と相互作用している。それは、Gln 381番、Trp 383番、Trp 403番、Ser 404番、Arg 415番、Ser 417番、Met 419番、Lys 421番、Arg 423番、Thr 426番及びLys 429番である（図3（a））。面白いことに、我々はアミノ酸側鎖のコンフォメーションの2つの状態を見つけた。DNAに結合したTRF1 DNA結合ドメインの20個の計算された構造の中で、Lys 421番ははっきりとしたコンフォメーションをとっていないが、G5および骨格のリン酸基の間をゆらいでいるように見える。それを図3（c）に示した。Lys 421番の側鎖のシグナルが顕著にその線幅が広がっているのが観測されているが、Lys 421番と同じ分子表面にあってDNAに接しているArg 425番にはそのような顕著な線幅の広がりが見えて

いないので、Lys 421番は本質的にDNA複合体で動的な性質を持っていることが考えられる。よって、Lys 421番はゆらゆらと揺らいだ水素結合をA4、G5、リン酸骨格と形成していると考えられる。 μ 秒からミリ秒の時間オーダーのこのような揺らいだ認識は他のDNA結合タンパク質、例えば、TFIIIA（Foster et al., 1997）やアンテナペディアルホメオドメイン（Billeter et al., 1993）などでも提案されている。

【0054】特異的な配列における各々の塩基対の役割
今回結合についての構造解析に使用したテロメア結合部位の各塩基対が寄与していることを確かめるために、我々はDNA結合ドメインと19種類の異なったDNA分子（この19種類は、野生型の13mer配列内で1つ又は2つの塩基が置換した変異体である）の相互作用を観測した。これらの解析はNMR、NMRの化学シフトの変化によってなされた。図4（a）に示すように、野生型のDNAの結合部位（wt）とDNA結合ドメインとの結合は非常に強いので、加えられたタンパク質はDNAのイミノプロトンの化学シフトをDNA結合型の位置に変化させた。それに対して、DNA結合部位の4番目の位置をAからTに変化させたDNA（A4T）では、DNA結合ドメインとの強い親和性がなくなって、そのために、DNAイミノプロトンの化学シフトは、タンパク質を徐々に加えると、徐々に変化しただけである（図4（c））。13merのDNAで、全く異なった配列を持ったもの（ns13）では、イミノプロトンの化学シフトはタンパク質を加えていっても、非常に小さい（図4（d））。これらのDNAの配列を変えた結合実験の結果は図4（e）にまとめてある。タンパク質-DNA複合体の構造中では、A4の特異的な認識ははっきりとは見えていないが、A4の位置を変えた2つの変異体（AからG、AからTに変えた）では特異的な結合能力がなくなっている。よって、A4はTRF1によって特異的に認識されていることがわかった。5番目～7番目のGをCに変えたすべての変異体も強い結合能力をなくしている。よって、3つのグアニン塩基が並んだこの並び方は、TRF1のDNA結合ドメインがテロメアDNAを認識するときに本質的である。8番目のTをA、G及びCに変えた3つの変異体や9番目のTをC及びGに変えた2つの変異体もまた強いDNA結合能力をなくしている。3番目のTをAに変えた変異体、9番目のTをAに変えた変異体、及び10番目のAをTに変えた変異体のこれらの3つの変異体（図4（b））は、わりと強い結合活性を保持しているように見える。しかしながら、3番目と9番目の両方をAからTに変えた変異体では、結合能力がなくなっている。構造からは、A10はどのアミノ酸からも認識されていない。4番目と10番目を同時にAからTに変えた変異体では、強い結合活性をなくしているが、A4の位置に比較してA10の位置はテロメアDNA配列において本質的に重要ではないと思われる。要約すると、これらの実験の結果、明確に示されたのは、A4G5G6G7T8T9配列がTRF1の非常に高い配列特

異的な認識において本質的なコアであることである。このことは、今回の構造解析の結果と対応するし、以前の生化学の実験 (Konig et al., 1998, Bianchi et al., 1999) とも対応する。

【0055】 Mybドメインやホメオドメインとの構造比較
前にも述べたように、TRF1 DNA結合ドメインの3つのヘリックスの骨格の構造体は、c-Mybの3つのリピートの骨格の構造体 (Nishikawa et al., 1998) と非常によく似ている。DNAに結合していない状態のTRF1のDNA結合ドメインの平均構造の骨格 (それは、アミノ酸383番~398番、403番~409番と417番~426番) とDNAに結合していないc-Mybの1番目、2番目及び3番目のリピート及びDNAに結合した状態のc-Mybの2番目及び3番目のリピートの骨格構造との間の根二乗平均偏差は、それぞれ、1.17オングストローム、0.97オングストローム、1.05オングストローム、1.15オングストローム、1.14オングストロームである。Rap1pの2つのサブドメインは定型的なMybドメインの構造とは少し異なっていて、TRF1のDNA結合ドメインのDNAに結合した状態の骨格原子とRap1pのサブドメインD1及びD2の対応する原子との間の根平均二乗偏差は、それぞれ、1.66オングストロームと1.58オングストロームである。

【0056】 TRF1のDNA結合ドメインのターン2は、c-Mybの3つのリピートの各々の対応するターンよりも2アミノ酸長くなっていて、TRF1の3番目のヘリックスはc-Mybの3つのリピートの各々の対応するヘリックスよりも少し長くなっている。Rap1pのDNA結合ドメインでは、1番目のヘリックスと2番目のヘリックスの間のリンカーはD1で9アミノ酸で構成されていて、D2では5アミノ酸で構成されている。D1やD2のリンカーは、不規則な構造をとっていて、TRF1の対応するターンよりもかなり長くなっている。D1の3番目のヘリックスはTRF1の3番目のヘリックスよりも少し短い。しかし、D2の3番目のヘリックスは、TRF1の3番目のヘリックスよりも少し長くて、さらに、D2の場合には、4番目のヘリックスが1番目と3番目のヘリックスと接触しながら続いている。ホメオドメインは3つのヘリックスを持っていて、典型的なHTHモチーフをその2番目と3番目のヘリックスが構成している。しかしながら、ホメオドメインの3つのヘリックスの構造は、Mybドメインの構造と比較すると、かなり違っている。TRF1のDNA結合ドメインとホメオドメインであるアンテナペディアエンゲレイルドOct1及びMat α 2との根二乗平均偏差は、DNAに結合した状態で、それぞれ、2.46、2.45、2.44及び2.50オングストロームである (Qian et al., 1989; Fraenkel et al., 1998; Kissinger et al., 1990; Klemm et al., 1994; Wolberger et al., 1991)。しかしながら、ホメオドメインの間同士での根二乗平均偏差はかなり小さくて、例えば、アンテナペディアとエンゲレイルドOct1及びMat α 2

ホメオドメインとの間では、それぞれ、0.34、0.75、0.73オングストロームである。

【0057】 TRF1、c-Myb、Rap1p及びホメオドメインのDNA複合体における構造比較

Mybドメイン、ホメオドメイン及びRap1pのDNA結合サブドメインは、すべてがDNA結合モチーフであるHTHファミリーに属しているが、DNAとの相互作用の幾何学的構造は異なっている。図5 (a) は、TRF1 DNA複合体とc-Mybの最小のDNA結合ドメインであるR2R3とDNAの複合体中のR2の部分の重ね合わせを示している。TRF1 DNA結合ドメインの配向とR2やR3のDNAに対する配向は非常によく似ていて、TRF1の3つのヘリックス領域の骨格原子とタンパク質によって覆われた領域のDNAの骨格原子を、DNAに結合した状態のR2及びR3の対応した原子と比較した根二乗平均偏差は、各々、1.42及び1.38オングストロームである。TRF1 DNA結合ドメインや、c-MybのR2及びR3の認識ヘリックスは、DNAの大きな溝の方向にほとんど平行に配置していて、認識ヘリックスとDNAのらせん軸との間の角度は、TRF1 DNA結合ドメイン、c-MybのR2及びR3のDNA複合体について、各々、53.3°、53.1°及び45.6°である。

【0058】 一方、TRF1とDNAの配向は、Rap1pサブドメインがDNAに結合したときとは異なっていて、それは図5 (b) に示した。タンパク質によって覆われたDNAの骨格原子を伴ったTRF1の3つのヘリックスの領域の骨格の原子とDNAに結合したD1及びD2の対応する原子との間の根二乗平均偏差は、各々、2.42オングストローム及び2.50オングストロームである。Rap1pの2つのサブドメイン中の認識ヘリックスはDNAのらせん軸に対してほぼ直角に配置しており、認識ヘリックスとDNAらせん軸との角度は、D1及びD2で、各々、80.8°及び83.3°である。

【0059】 一般的に、DNA上でのこれらのドメインの配向は、DNA骨格との非特異的相互作用によって決定されている。TRF1 DNA結合ドメインでは、DNAのリン酸骨格はTrp 403番のNεH、Ser 404番の骨格のNH、Lys 421番のNζHが一つのDNAの鎖を認識し、さらに、Arg 415番の Guanidino基とArg 423番の Guanidino基がもう一つ別の鎖を同じ面から認識している。これらのアミノ酸は、c-MybのR2及びR3の両方で保存されている。しかし、Rap1pの2つのサブドメインのD1及びD2では、TRF1 DNA結合ドメインのTrp 403番、Arg 415番、Lys 421番に対応する残基は、各々、チロシンまたはフェニルアラニン、ヒスチジン及びアルギニン残基に置換されている。ヒスチジンを除いたこれらの残基は、リン酸骨格には関与していない。その結果、DNA上でのD1及びD2の配向は、c-Mybの定型的なMybドメインであるR2及びR3やTRF1 DNA結合ドメインの配向と異なっている。図5 (c) で示すように、TRF1のDNA複合体をエンゲレイルドホメオドメインのDNA複合体と重ね描きした。TRF1のDNA複合体の骨格構

造は、エンゲレイルドホメオドメインとはかなり違っている。TRF1の3つのヘリックスの領域とタンパク質によって覆われたDNAの骨格原子の位置とアンテナペディアエンゲレイルドOct1及びMat α 2のホメオドメインの各々の対応する原子との間の根二乗平均偏差は、3.69オングストローム、3.72オングストローム、3.78オングストローム及び3.71オングストロームである。

【0060】TRF1のDNA結合ドメインがテロメアDNAにタンデムに配置した構造

ヒトのテロメアは、TTAGGG配列モチーフがタンデムに結合した非常に長い構造であるが、それはTRF1やTRF2によって認識されている。TRF1 DNA結合ドメインのテロメアDNA複合体のNMR構造とDNAの変異体を使った結合実験によって、TAGCGTT配列が一つのTRF1 DNA結合ドメインによって認識されることが明らかになった。これらの結果は、結合部位に関する以前の生化学的な実験 (Konig et al., 1998; Bianchi et al., 1999) と非常によく対応している。今回の構造に基づいて、2つのDNA結合ドメインがテロメアDNAにタンデムに配置するモデル構造を構築した。それを図6に示す。このモデルでは、2つのDNA結合ドメインは6塩基対離れていて、2つのドメインはDNAの二重らせんの反対側に位置していて、それで、立体的な障害が全く生じていない。ここに示した構造情報に基づくよりも前に、非常によく似たモデルが、フットプリントのデータとTRF1 DNA結合ドメインのモデル構造から提案されている (Konig et al., 1998)。TRF1とTRF2のDNA結合ドメインが非常に高い配列相同性を持っている (55%, 図1) ことから、両方のDNA結合ドメインともテロメアDNAとのよく似た接触をすることができると考えられる。最近、二量体のTRF1 (各々のC末端に2つのDNA結合ドメインを持っている) が非常に空間的に自由度を持って2つの結合部位に結合することが示されている (Bianchi et al., 1999)。その結果、TRF1によってDNAの高度の高次構造の変化が引き起こされる。このことは電子顕微鏡の実験解析からも支持されている (Griffith et al., 1997; Bianchi et al., 1999)。TRF1にはMybドメインが存在するにも関わらず、ここで示したタンパク質-DNA複合体構造は、TRF1の二量体がc-Mybリピートと異なる様式で結合することを示している。c-Mybのリピートでは、R2及びR3からの2つのDNA認識ヘリックスは、DNAの大きな溝に密にパックされて、一つの配列TAACNGを協調的に認識する (Ogata et al., 1994)。DNAへの結合に伴って、R2とR3は協調的に幅広いプラスの表面を形成して、それは負に荷電したDNAリン酸骨格への結合に必須である。一方、Rap1p DNA結合ドメイン中の2つのサブドメインD1及びD2は、DNAの大きな溝で互いに離れて結合し、各々が別々のGGTGT配列を認識し、その認識はN末端の腕によって助けられて、それで高いDNA結合親和性を与え、そして、ホメオドメインのように長い結合部位を認識している (Konig et al.

1., 1996; Taylor et al., 2000)。D1及びD2の両方のサブドメインは、D1とD2の間のリンカー及びD2の後のフレキシブルなC末端と協調して、DNA複合体中で非常に強い正電荷の表面を形成している。D1単独では特異的なDNA結合能はなく、また、Rap1pのDNA結合ドメインのD2の後を欠損すると特異的なDNA結合能がなくなる (Henry et al., 1990)。よって、この非常に強い広い正電荷の表面はRap1pの協調的な認識にとって必要である。しかしながら、TRF1の一つのMybドメインだけで試験管内で配列特異的に結合することができる。図6に示したように、TRF1の2つのMybドメインの各々は、独立に非常に強い正電荷の表面を持っている。このことは、TRF1の2つのMybドメインが2つの結合部位に非常に極端に空間的な自由度を持って、しかも協調的ではなく結合することができるということと一致している (Bianchi et al., 1999)。

【0061】実験手法

タンパク質とDNAの調製

ヒトTRF1のDNA結合ドメインは、アミノ酸371番～439番で、N末端にメチオニンを付加して、ベクターpET13A (Gerchman et al., 1994) を用いて、大腸菌BL21 (DE3) pLysS (Novagen) に大量発現させた。大腸菌を37℃で培養して、OD₆₀₀ が0.4となったところで、タンパク質発現を誘導するために1mMのイソプロピルー1-チオ- β -D-ガラクトピラノシド (IPTG) を加えた。添加後3時間培養し、大腸菌を集めて、バッファーA (50 mM Tris-HCl, pH 8.0, 5 mM EDTA, 1mM PMSF, 1mMベンズアミジン及び5%グリセロール) に懸濁した。安定同位体でラベルするためには、¹⁵NH₄Cl (0.15%) 及び/又は [¹³C]-グルコース (0.2%) を含むM9最小培地を培養に使った。大腸菌は水上で超音波で破碎し、遠心して集めた。上清を次の精製のために使った。DNA結合ドメインはイオン交換クロマトグラフィー (P11, CM52; Whatman)、ゲル濾過 (Superdex 75; Pharmacia) 及び疎水 (Phenyl sepharose; Pharmacia) カラムクロマトグラフィーを用いて精製した。サンプルの同定と純度は、MALDI-TOF質量分析法と電気泳動法によって確認した。

【0062】13merの二重鎖DNA (その配列は、5'-GTTA GGCTTAGGG-3' (配列番号2)) の各々の鎖はBex社から購入し、50 mMリン酸カリウムバッファー (pH 6.8) 中で90℃から徐々に温度を下げて両方の鎖を巻き戻した。試料の純度はゲル濾過によって確認した。DNA結合ドメインとDNAとの複合体は、タンパク質にDNA溶液を徐々に等量になるまで加えることによって得た。沈殿物が出るのを避けるために、タンパク質及びDNAは、100 mM NaClを含有する50 mMリン酸カリウム緩衝液 (pH 6.8) に溶かし、試料の濃度は、混合前には1 mM以下に抑えた。さらに、NMR実験のために、その溶液を濃縮して、3 kDaカットオフメンブレンを持ったcentricon (Amicon) で塩強度を薄めた。

【0063】NMR分光

DNA結合ドメインのDNAフリーの形は、100 mM NaCl及び1 mM NaN_3 を含有する50mMリン酸カリウムバッファー (pH 6.8) 中で測定し、DNA結合体は塩がない溶液(pH 6.8) 又は1 mM NaN_3 含有5 mMリン酸カリウムバッファー(pH 6.8)、10% (v/v)又は100% D_2O 中で測定した。タンパク質の濃度は両方の試料で1.5-2.5 mMであった。NMR実験は、DNAフリーのときは300Kで行い、DNA結合体は305 Kで行い、Bruker DMX-600及びDRX-500を使った。それらは、三重共鳴グラジエントプローブがついている。そして、AMX2-500も使った。タンパク質の骨格のシグナルの帰属は、3次元のHNCA、3次元のHN(CO)CA、3次元のHNCO(Grzesiek and Bax, 1992a)、3次元のCBCANH及び3次元のCBCA(CO)NH(Grzesiek and Bax, 1992b)から得た。タンパク質の側鎖の共鳴の帰属は、3次元のHBHA(CO)NH(Grzesiek and Bax, 1992b)、3次元のC(CO)NH(Grzesiek and Bax, 1993)、3次元のHCCH-TOCSY(Kay et al., 1993)、3次元の ^{15}N 編集TOCSY、3次元の ^{15}N 編集NOESY及び2次元の同核種DQF-COSY、TOCSY及びNOESYの実験により得た。H β 及びVal/Leuのメチル基の立体特異的な帰属は、3次元のHNHB(Archer et al., 1991)及びNOESY実験をともに用いることによって得た。骨格の二面角 ϕ の制限のための $^3J_{\text{H}\alpha}$ の結合定数は、3次元のHNHA(Vuister and Bax, 1993)実験によって測定した。ゆっくりと交換するアミドのプロトンは、 H_2O 中で凍結乾燥したサンプルを D_2O 中に溶かした後の一連の ^1H - ^{15}N HSQCスペクトルで得た。DNAの共鳴の帰属及びDNA分子内の距離制限は、2次元のNOESY、TOCSY及びDQF-COSY (それは、 ^{13}C 又は $^{13}\text{C}/^{15}\text{N}$ のフィルターのパルス法 (Ogura et al., 1996) を使って得た。分子間の距離の制限は、 ^{13}C 編集(F1)、 ^{13}C フィルター(F3) NOESY実験及び ^{15}N 編集(F1)、 $^{15}\text{N}/^{13}\text{C}$ フィルター(F3) NOESY実験 (Ogura et al., 1996) より得た。すべてのNMRスペクトルは、NMR Pipe(Delaglio et al., 1995)及びPIPP(Garret et al., 1991)ソフトウェアパッケージを使って解析した。DNAの滴定実験では、DNA結合ドメインを19種類の13mer DNA分子種に徐々に加えた。その19種の中には、コントロールとして、野生型の配列、1つ及び2つの塩基対を置換した配列、及び全く非特異的に結合する配列が含まれていた。加える量は、0.25モル等量ずつ増加させた。DNA濃度は、50 mMリン酸カリウムバッファー (pH 6.8) 及び75 mM NaCl中で約0.3 mMであった。塩基対のイミノプロトンの化学シフトの変化は293 Kの1次元の ^1H スペクトルでモニターした。

【0064】構造計算

実験的な距離の制限は、NOESYスペクトルのクロスピークの強度から得た。タンパク質内のNOEは、4つの距離制限に分類した。それは、1.9-3.0オングストローム、1.9-4.0オングストローム、1.9-5.0オングストローム及び1.9-6.0オングストロームで、タンパク質とDNA分

子間のNOEは、1.9-3.5オングストローム、1.9-4.5オングストローム、1.9-5.5オングストローム及び1.9-6.5オングストロームに分類し、各々が、強い、中程度、弱い、非常に弱いNOEに対応している。DNA分子内のNOEは、5つの距離制限に分類し、それは、1.8-2.5オングストローム、2.3-3.5オングストローム、2.3-4.0オングストローム、2.5-5.0オングストローム及び3.0-6.0オングストロームであり、各々が、強い、中程度の強い、中程度、弱い、非常に弱いNOEに対応している。擬原子補正は、その上限に適用した。タンパク質骨格内の水素結合の制限は、化学シフトとNOEの連続性を考慮して交換がゆっくりとしたプロトンに適用した。DNA内での水素結合の制限は塩基対を保持するために用いた。実験的なねじれ角の制限は、 $^3J_{\text{H}\alpha}$ の結合定数から得て、 $^3J_{\text{H}\alpha} < 5.5$ のとき、 $-90^\circ < \phi < -40^\circ$ で、 $^3J_{\text{H}\alpha} > 8.5$ のとき、 $-160^\circ < \phi < -80^\circ$ であった。DNAの骨格のねじれ角に関して、DNAのAフォームとBフォームをカバーするような非常に弱いねじれ角の制限が右巻きのリン酸骨格を維持するために適用されていた。それは、局所的な鏡像のコンフォメーションを排除している。 α 、 β 、 γ 、 ϵ 及び ζ のねじれ角は、各々、 $-65^\circ \pm 50^\circ$ 、 $175^\circ \pm 50^\circ$ 、 $70^\circ \pm 50^\circ$ 、 $-170^\circ \pm 50^\circ$ 及び $-100^\circ \pm 50^\circ$ に制限されていた (Saenger, 1984)。上記の距離及びねじれ角の制限を使って、DNA結合ドメインのDNAに結合していない状態とDNAに結合した状態の両方で3次元構造を、4次元のシュミレイテッドアニーリング (4D-SA) プログラムEMBOSS(Nakai et al., 1993)を用いて得た。DNAに結合していない状態のときには、計算は100個のランダムな構造体から出発して、NOEから得られた距離の制限、角度制限及び水素結合制限を入れて計算した。4次元のシュミレイテッドアニーリングの12,000ステップを行い、さらに、AMBERの全原子分子力場を用いて、共役勾配エネルギー最小化法を3,000ステップ使った。静電的なエネルギーは、誘電率 $2r_{ij}$ (ここで、 r_{ij} は非結合原子iとjの間の距離を表している) を含んでいる。100の構造体から25が構造の最終セットとして選ばれて、それは距離の制限が0.3オングストローム以内で、角度の制限が 5° 以内に入っている。DNAに結合した状態は、最初、25個のDNA結合ドメインの構造をフリーフォームのときと全く同様にタンパク質内の制限だけで計算した。5個の最も適したタンパク質の構造を選び、次のDNAとのドッキングに使った。次に、DNA結合ドメインと理想的な13mer二重鎖DNAのB型構造を4次元シュミレイテッドアニーリングの12,000ステップでドッキングした。そのときには、DNAの分子内の制限と分子間の制限、それに、タンパク質内の制限を用いた。このステップの初期構造は、前のステップで計算したDNA結合ドメインと典型的なBフォームのDNAを5つの異なる配向に置いて、お互いが50オングストローム離れたところから始めた。次に、各々の結合した構造は、

9,000ステップのシュミレイテッドアニーリングをさらにを行い、さらに、5,000ステップの共役勾配エネルギー最適化法を前に述べたのと同じ方法で行った。最終的に、20個の構造が選ばれて、それらはすべて、距離の制限が0.3オングストローム以内、角度の制限が5°以内であった。

*【0065】表1

TRF1 DNA結合ドメインとDNA複合体のパラメータの数と構造統計

【0066】

【表1】

*

Number of experimental restraints				
	TRF1-DNA		TRF1	
Protein				
Distance restraints	901		888	
intraresidue		156		203
sequential ($ i-j =1$)		263		237
short range ($ i-j \leq 5$)		273		242
long range ($ i-j > 5$)		209		206
Dihedral restraints				
ϕ	29		28	
DNA				
Distance restraints ^a	356			
intraresidue		149		
sequential ($ i-j =1$)		191		
interstrand		16		
Protein-DNA	55			
Total	1341		916	
R.M.S.Deviation from experimental restraints				
	<SA> ^b		<SA>	<SA> _c
Distance(Å)	0.011 ± 0.001	0.011	0.005 ± 0.001	0.004
Dihedral(°)	0.261 ± 0.353	0.158	0.031 ± 0.091	0.000
R.M.S.Deviation from Idealized geometry				
Bonds(Å)	0.005 ± 0.000	0.005	0.005 ± 0.000	0.005
Angle(°)	1.661 ± 0.045	1.619	1.509 ± 0.045	1.514
Impropers(°)	2.322 ± 0.334	2.195	1.837 ± 0.430	1.560
Energetics(kcal/mol)				
E _{total}	-882.2 ± 7.221	-889.8	-392.0 ± 7.835	-383.8
R.M.S.Deviations from mean coordinate (Å)				
	(backbone / all heavy atoms)			
Protein ^c	0.50 ± 0.06 / 1.12 ± 0.09		0.46 ± 0.05 / 1.06 ± 0.05	
DNA ^d	0.66 ± 0.08 / 0.70 ± 0.06			
Protein+DNA	0.65 ± 0.04 / 0.97 ± 0.06			
Ramachandran plot(%) ^e				
Residues in favored regions	77.8		79.7	
allowed regions	19.3		15.2	
accepted regions	3.0		4.9	
disallowed regions	0.0		0.2	

a 水素結合の制限及び環と環の制限は4次元シュミレイテッドアニーリングにおいてさらに追加されており、それは塩基対の平面性を保っている。b<SA>はNMRの最終構造に対する平均値を示して、<SA>_fは最適化した平均構造を示している。c 残基380番～429番はDNA複合

※ 体中で重ね描きされ、DNAフリーのときの残基383番～429番で重ね描きされている。d 塩基対1-11 (3' -13') が重ね描きされている。

e PROCHECK-NMR(Laskowski et al., 1996)

【0067】

【表2】

テロメアDNAに結合したヒトTRF1 (Thr 371-Lys 429) の三次元構造座標(データは20構造分ある、原子の番号付けはPDBの書式に従った。)

HEADER 000000

REMARK 0.00531 1.69591 0.02560 0.01792 3.10332 1.73272
0.00000

REMARK 2.82854 0.22293 0.48797 1.18621 0.93142

(14)

特開2003-135087

REMARK	25	0.01132	0.00364	0.00657	0.01847	0.01323	26
REMARK	130	125	5	0	0	0	
REMARK	1378	305	460	273	340		
REMARK	0.03685	0.18541	0.03573	0.04104	0.18541	0.10610	
REMARK	5.78567	0.36906					
REMARK	2	1	0	1	0	0	
ATOM	1 N GLU	1	8.604	-12.891	28.906	1.00	0.00
ATOM	2 CA GLU	1	7.354	-12.194	29.255	1.00	0.00
ATOM	3 CB GLU	1	7.107	-10.997	28.316	1.00	0.00
ATOM	4 CG GLU	1	8.373	-10.171	28.047	1.00	0.00
ATOM	5 CD GLU	1	9.137	-9.854	29.327	1.00	0.00
ATOM	6 OE1 GLU	1	9.981	-10.707	29.682	1.00	0.00
ATOM	7 OE2 GLU	1	8.822	-8.819	29.948	1.00	0.00
ATOM	8 C GLU	1	6.190	-13.188	29.291	1.00	0.00
ATOM	9 O GLU	1	6.410	-14.353	29.629	1.00	0.00
ATOM	10 N LYS	2	4.973	-12.737	28.955	1.00	0.00
ATOM	11 CA LYS	2	3.751	-13.532	28.915	1.00	0.00
ATOM	12 CB LYS	2	2.992	-13.454	30.253	1.00	0.00
ATOM	13 CG LYS	2	3.760	-13.989	31.471	1.00	0.00
ATOM	14 CD LYS	2	3.977	-15.509	31.400	1.00	0.00
ATOM	15 CE LYS	2	4.955	-16.013	32.468	1.00	0.00
ATOM	16 NZ LYS	2	6.303	-15.440	32.286	1.00	0.00
ATOM	17 C LYS	2	2.876	-12.984	27.785	1.00	0.00
ATOM	18 O LYS	2	2.768	-11.770	27.628	1.00	0.00
ATOM	19 N HIS	3	2.264	-13.886	27.010	1.00	0.00
ATOM	20 CA HIS	3	1.389	-13.591	25.880	1.00	0.00
ATOM	21 CB HIS	3	2.129	-12.772	24.805	1.00	0.00
ATOM	22 CG HIS	3	1.474	-12.811	23.445	1.00	0.00
ATOM	23 ND1 HIS	3	0.139	-12.493	23.240	1.00	0.00
ATOM	24 CE1 HIS	3	-0.111	-12.638	21.927	1.00	0.00
ATOM	25 NE2 HIS	3	0.964	-13.030	21.239	1.00	0.00
ATOM	26 CD2 HIS	3	1.961	-13.138	22.201	1.00	0.00
ATOM	27 C HIS	3	0.903	-14.925	25.316	1.00	0.00
ATOM	28 O HIS	3	-0.284	-15.236	25.369	1.00	0.00
ATOM	29 N ARG	4	1.850	-15.700	24.782	1.00	0.00
ATOM	30 CA ARG	4	1.630	-17.011	24.188	1.00	0.00
ATOM	31 CB ARG	4	1.230	-16.852	22.711	1.00	0.00
ATOM	32 CG ARG	4	0.970	-18.184	21.989	1.00	0.00
ATOM	33 CD ARG	4	-0.239	-18.938	22.560	1.00	0.00
ATOM	34 NE ARG	4	-0.465	-20.214	21.863	1.00	0.00
ATOM	35 CZ ARG	4	-1.261	-20.422	20.798	1.00	0.00
ATOM	36 NH1 ARG	4	-1.452	-21.677	20.373	1.00	0.00
ATOM	37 NH2 ARG	4	-1.864	-19.410	20.162	1.00	0.00
ATOM	38 C ARG	4	2.897	-17.849	24.363	1.00	0.00

(15)

特開2003-135087

27

28

ATOM	39	O	ARG	4	2.812	-19.014	24.744	1.00	0.00
ATOM	40	N	ALA	5	4.062	-17.238	24.092	1.00	0.00
ATOM	41	CA	ALA	5	5.397	-17.819	24.186	1.00	0.00
ATOM	42	CB	ALA	5	5.637	-18.517	25.532	1.00	0.00
ATOM	43	C	ALA	5	5.689	-18.736	22.998	1.00	0.00
ATOM	44	O	ALA	5	4.768	-19.200	22.331	1.00	0.00
ATOM	45	N	ARG	6	6.984	-18.976	22.741	1.00	0.00
ATOM	46	CA	ARG	6	7.483	-19.796	21.642	1.00	0.00
ATOM	47	CB	ARG	6	7.036	-21.262	21.771	1.00	0.00
ATOM	48	CG	ARG	6	7.512	-21.888	23.087	1.00	0.00
ATOM	49	CD	ARG	6	7.087	-23.358	23.150	1.00	0.00
ATOM	50	NE	ARG	6	7.505	-23.977	24.416	1.00	0.00
ATOM	51	CZ	ARG	6	7.180	-25.222	24.803	1.00	0.00
ATOM	52	NH1	ARG	6	6.439	-26.006	24.008	1.00	0.00
ATOM	53	NH2	ARG	6	7.598	-25.679	25.989	1.00	0.00
ATOM	54	C	ARG	6	7.045	-19.169	20.319	1.00	0.00
ATOM	55	O	ARG	6	6.009	-19.541	19.773	1.00	0.00
ATOM	56	N	LYS	7	7.837	-18.205	19.824	1.00	0.00
ATOM	57	CA	LYS	7	7.556	-17.477	18.593	1.00	0.00
ATOM	58	CB	LYS	7	8.765	-16.623	18.169	1.00	0.00
ATOM	59	CG	LYS	7	8.598	-16.070	16.741	1.00	0.00
ATOM	60	CD	LYS	7	9.591	-14.954	16.386	1.00	0.00
ATOM	61	CE	LYS	7	9.249	-13.583	16.990	1.00	0.00
ATOM	62	NZ	LYS	7	7.920	-13.099	16.572	1.00	0.00
ATOM	63	C	LYS	7	7.075	-18.401	17.470	1.00	0.00
ATOM	64	O	LYS	7	7.696	-19.426	17.189	1.00	0.00
ATOM	65	N	ARG	8	5.967	-18.007	16.837	1.00	0.00
ATOM	66	CA	ARG	8	5.334	-18.706	15.732	1.00	0.00
ATOM	67	CB	ARG	8	4.138	-17.864	15.266	1.00	0.00
ATOM	68	CG	ARG	8	3.581	-18.268	13.898	1.00	0.00
ATOM	69	CD	ARG	8	2.379	-17.393	13.524	1.00	0.00
ATOM	70	NE	ARG	8	1.130	-17.878	14.126	1.00	0.00
ATOM	71	CZ	ARG	8	-0.061	-17.284	13.945	1.00	0.00
ATOM	72	NH1	ARG	8	-1.151	-17.729	14.582	1.00	0.00
ATOM	73	NH2	ARG	8	-0.172	-16.218	13.147	1.00	0.00
ATOM	74	C	ARG	8	6.359	-18.924	14.616	1.00	0.00
ATOM	75	O	ARG	8	7.091	-18.004	14.251	1.00	0.00
ATOM	76	N	GLN	9	6.409	-20.148	14.081	1.00	0.00
ATOM	77	CA	GLN	9	7.343	-20.514	13.030	1.00	0.00
ATOM	78	CB	GLN	9	7.491	-22.048	12.974	1.00	0.00
ATOM	79	CG	GLN	9	6.221	-22.755	12.476	1.00	0.00
ATOM	80	CD	GLN	9	6.248	-24.269	12.661	1.00	0.00
ATOM	81	OE1	GLN	9	7.218	-24.928	12.297	1.00	0.00
ATOM	82	NE2	GLN	9	5.168	-24.833	13.198	1.00	0.00
ATOM	83	C	GLN	9	6.893	-19.940	11.684	1.00	0.00
ATOM	84	O	GLN	9	5.772	-20.186	11.250	1.00	0.00
ATOM	85	N	ALA	10	7.775	-19.193	11.014	1.00	0.00
ATOM	86	CA	ALA	10	7.522	-18.644	9.688	1.00	0.00
ATOM	87	CB	ALA	10	8.253	-17.310	9.525	1.00	0.00
ATOM	88	C	ALA	10	8.056	-19.697	8.719	1.00	0.00

29

30

ATOM	89	O	ALA	10	9.166	-20.181	8.937	1.00	0.00
ATOM	90	N	TRP	11	7.308	-20.081	7.675	1.00	0.00
ATOM	91	CA	TRP	11	7.817	-21.105	6.771	1.00	0.00
ATOM	92	CB	TRP	11	6.786	-21.523	5.725	1.00	0.00
ATOM	93	CG	TRP	11	5.627	-22.385	6.129	1.00	0.00
ATOM	94	CD1	TRP	11	4.747	-22.173	7.130	1.00	0.00
ATOM	95	NE1	TRP	11	3.816	-23.194	7.171	1.00	0.00
ATOM	96	CE2	TRP	11	4.059	-24.129	6.185	1.00	0.00
ATOM	97	CZ2	TRP	11	3.427	-25.326	5.805	1.00	0.00
ATOM	98	CH2	TRP	11	3.940	-26.058	4.724	1.00	0.00
ATOM	99	CZ3	TRP	11	5.068	-25.586	4.037	1.00	0.00
ATOM	100	CE3	TRP	11	5.691	-24.389	4.420	1.00	0.00
ATOM	101	CD2	TRP	11	5.209	-23.631	5.505	1.00	0.00
ATOM	102	C	TRP	11	9.074	-20.614	6.044	1.00	0.00
ATOM	103	O	TRP	11	9.152	-19.450	5.648	1.00	0.00
ATOM	104	N	LEU	12	10.043	-21.516	5.863	1.00	0.00
ATOM	105	CA	LEU	12	11.299	-21.255	5.167	1.00	0.00
ATOM	106	CB	LEU	12	12.492	-21.740	6.009	1.00	0.00
ATOM	107	CG	LEU	12	12.623	-21.014	7.361	1.00	0.00
ATOM	108	CD1	LEU	12	11.962	-21.809	8.494	1.00	0.00
ATOM	109	CD2	LEU	12	14.103	-20.816	7.707	1.00	0.00
ATOM	110	C	LEU	12	11.279	-21.983	3.822	1.00	0.00
ATOM	111	O	LEU	12	10.426	-22.842	3.599	1.00	0.00
ATOM	112	N	TRP	13	12.225	-21.669	2.920	1.00	0.00
ATOM	113	CA	TRP	13	12.297	-22.341	1.623	1.00	0.00
ATOM	114	CB	TRP	13	13.395	-21.806	0.709	1.00	0.00
ATOM	115	CG	TRP	13	14.714	-21.549	1.353	1.00	0.00
ATOM	116	CD1	TRP	13	15.132	-20.303	1.592	1.00	0.00
ATOM	117	NE1	TRP	13	16.371	-20.311	2.194	1.00	0.00
ATOM	118	CE2	TRP	13	16.816	-21.607	2.374	1.00	0.00
ATOM	119	CZ2	TRP	13	17.987	-22.144	2.929	1.00	0.00
ATOM	120	CH2	TRP	13	18.151	-23.537	2.969	1.00	0.00
ATOM	121	CZ3	TRP	13	17.146	-24.374	2.456	1.00	0.00
ATOM	122	CE3	TRP	13	15.976	-23.826	1.899	1.00	0.00
ATOM	123	CD2	TRP	13	15.773	-22.429	1.842	1.00	0.00
ATOM	124	C	TRP	13	12.505	-23.832	1.768	1.00	0.00
ATOM	125	O	TRP	13	12.251	-24.551	0.817	1.00	0.00
ATOM	126	N	GLU	14	12.962	-24.337	2.910	1.00	0.00
ATOM	127	CA	GLU	14	13.094	-25.780	3.005	1.00	0.00
ATOM	128	CB	GLU	14	13.796	-26.172	4.309	1.00	0.00
ATOM	129	CG	GLU	14	14.104	-27.671	4.336	1.00	0.00
ATOM	130	CD	GLU	14	14.962	-28.027	5.543	1.00	0.00
ATOM	131	OE1	GLU	14	14.364	-28.371	6.584	1.00	0.00
ATOM	132	OE2	GLU	14	16.200	-27.935	5.400	1.00	0.00
ATOM	133	C	GLU	14	11.690	-26.367	2.845	1.00	0.00
ATOM	134	O	GLU	14	11.451	-27.184	1.960	1.00	0.00
ATOM	135	N	GLU	15	10.762	-25.899	3.679	1.00	0.00
ATOM	136	CA	GLU	15	9.373	-26.303	3.667	1.00	0.00
ATOM	137	CB	GLU	15	8.680	-25.693	4.886	1.00	0.00
ATOM	138	CG	GLU	15	9.332	-26.046	6.228	1.00	0.00

(17)

特開2003-135087

31				32			
ATOM	139	CD	GLU	15	8.887	-25.032	7.268 1.00 0.00
ATOM	140	OE1	GLU	15	9.519	-23.954	7.299 1.00 0.00
ATOM	141	OE2	GLU	15	7.898	-25.329	7.974 1.00 0.00
ATOM	142	C	GLU	15	8.680	-25.859	2.370 1.00 0.00
ATOM	143	O	GLU	15	8.103	-26.687	1.676 1.00 0.00
ATOM	144	N	ASP	16	8.719	-24.561	2.041 1.00 0.00
ATOM	145	CA	ASP	16	8.069	-24.004	0.854 1.00 0.00
ATOM	146	CB	ASP	16	8.168	-22.472	0.834 1.00 0.00
ATOM	147	CG	ASP	16	6.969	-21.810	1.496 1.00 0.00
ATOM	148	OD1	ASP	16	5.891	-21.804	0.856 1.00 0.00
ATOM	149	OD2	ASP	16	7.152	-21.285	2.612 1.00 0.00
ATOM	150	C	ASP	16	8.611	-24.561	-0.462 1.00 0.00
ATOM	151	O	ASP	16	7.831	-24.888	-1.355 1.00 0.00
ATOM	152	N	LYS	17	9.935	-24.660	-0.614 1.00 0.00
ATOM	153	CA	LYS	17	10.523	-25.167	-1.846 1.00 0.00
ATOM	154	CB	LYS	17	12.029	-24.843	-1.910 1.00 0.00
ATOM	155	CG	LYS	17	12.585	-24.996	-3.328 1.00 0.00
ATOM	156	CD	LYS	17	14.047	-24.534	-3.441 1.00 0.00
ATOM	157	CE	LYS	17	15.022	-25.303	-2.533 1.00 0.00
ATOM	158	NZ	LYS	17	15.090	-24.750	-1.165 1.00 0.00
ATOM	159	C	LYS	17	10.173	-26.657	-1.961 1.00 0.00
ATOM	160	O	LYS	17	9.802	-27.122	-3.040 1.00 0.00
ATOM	161	N	ASN	18	10.249	-27.398	-0.843 1.00 0.00
ATOM	162	CA	ASN	18	9.876	-28.809	-0.807 1.00 0.00
ATOM	163	CB	ASN	18	10.146	-29.375	0.590 1.00 0.00
ATOM	164	CG	ASN	18	9.693	-30.820	0.725 1.00 0.00
ATOM	165	OD1	ASN	18	10.094	-31.667	-0.066 1.00 0.00
ATOM	166	ND2	ASN	18	8.868	-31.103	1.733 1.00 0.00
ATOM	167	C	ASN	18	8.399	-28.969	-1.187 1.00 0.00
ATOM	168	O	ASN	18	8.053	-29.862	-1.957 1.00 0.00
ATOM	169	N	LEU	19	7.534	-28.095	-0.661 1.00 0.00
ATOM	170	CA	LEU	19	6.105	-28.088	-0.935 1.00 0.00
ATOM	171	CB	LEU	19	5.408	-27.021	-0.078 1.00 0.00
ATOM	172	CG	LEU	19	3.900	-26.886	-0.336 1.00 0.00
ATOM	173	CD1	LEU	19	3.155	-28.202	-0.104 1.00 0.00
ATOM	174	CD2	LEU	19	3.324	-25.805	0.586 1.00 0.00
ATOM	175	C	LEU	19	5.875	-27.859	-2.427 1.00 0.00
ATOM	176	O	LEU	19	5.125	-28.608	-3.044 1.00 0.00
ATOM	177	N	ARG	20	6.526	-26.845	-3.012 1.00 0.00
ATOM	178	CA	ARG	20	6.411	-26.540	-4.434 1.00 0.00
ATOM	179	CB	ARG	20	7.271	-25.318	-4.777 1.00 0.00
ATOM	180	CG	ARG	20	7.092	-24.901	-6.242 1.00 0.00
ATOM	181	CD	ARG	20	7.506	-23.438	-6.438 1.00 0.00
ATOM	182	NE	ARG	20	7.204	-22.980	-7.803 1.00 0.00
ATOM	183	CZ	ARG	20	7.253	-21.700	-8.212 1.00 0.00
ATOM	184	NH1	ARG	20	7.656	-20.734	-7.375 1.00 0.00
ATOM	185	NH2	ARG	20	6.891	-21.386	-9.463 1.00 0.00
ATOM	186	C	ARG	20	6.766	-27.780	-5.258 1.00 0.00
ATOM	187	O	ARG	20	6.044	-28.136	-6.192 1.00 0.00
ATOM	188	N	SER	21	7.860	-28.461	-4.888 1.00 0.00

(18)

特開2003-135087

33

34

ATOM	189	CA	SER	21	8.245	-29.700	-5.545	1.00	0.00
ATOM	190	CB	SER	21	9.545	-30.267	-4.954	1.00	0.00
ATOM	191	OG	SER	21	10.653	-29.805	-5.700	1.00	0.00
ATOM	192	C	SER	21	7.084	-30.688	-5.409	1.00	0.00
ATOM	193	O	SER	21	6.643	-31.235	-6.411	1.00	0.00
ATOM	194	N	GLY	22	6.582	-30.898	-4.189	1.00	0.00
ATOM	195	CA	GLY	22	5.464	-31.789	-3.905	1.00	0.00
ATOM	196	C	GLY	22	4.279	-31.537	-4.839	1.00	0.00
ATOM	197	O	GLY	22	3.755	-32.474	-5.435	1.00	0.00
ATOM	198	N	VAL	23	3.874	-30.271	-4.974	1.00	0.00
ATOM	199	CA	VAL	23	2.778	-29.842	-5.830	1.00	0.00
ATOM	200	CB	VAL	23	2.593	-28.316	-5.706	1.00	0.00
ATOM	201	CG1	VAL	23	1.688	-27.755	-6.813	1.00	0.00
ATOM	202	CG2	VAL	23	2.023	-27.951	-4.326	1.00	0.00
ATOM	203	C	VAL	23	3.026	-30.274	-7.278	1.00	0.00
ATOM	204	O	VAL	23	2.124	-30.791	-7.932	1.00	0.00
ATOM	205	N	ARG	24	4.242	-30.057	-7.791	1.00	0.00
ATOM	206	CA	ARG	24	4.572	-30.411	-9.168	1.00	0.00
ATOM	207	CB	ARG	24	5.814	-29.626	-9.611	1.00	0.00
ATOM	208	CG	ARG	24	6.231	-29.975	-11.050	1.00	0.00
ATOM	209	CD	ARG	24	6.819	-28.766	-11.783	1.00	0.00
ATOM	210	NE	ARG	24	5.751	-27.817	-12.118	1.00	0.00
ATOM	211	CZ	ARG	24	5.877	-26.701	-12.850	1.00	0.00
ATOM	212	NH1	ARG	24	7.075	-26.323	-13.315	1.00	0.00
ATOM	213	NH2	ARG	24	4.788	-25.970	-13.113	1.00	0.00
ATOM	214	C	ARG	24	4.725	-31.921	-9.402	1.00	0.00
ATOM	215	O	ARG	24	4.302	-32.416	-10.443	1.00	0.00
ATOM	216	N	LYS	25	5.343	-32.651	-8.468	1.00	0.00
ATOM	217	CA	LYS	25	5.590	-34.082	-8.605	1.00	0.00
ATOM	218	CB	LYS	25	6.780	-34.515	-7.726	1.00	0.00
ATOM	219	CG	LYS	25	8.170	-34.182	-8.299	1.00	0.00
ATOM	220	CD	LYS	25	8.619	-32.745	-8.015	1.00	0.00
ATOM	221	CE	LYS	25	10.045	-32.489	-8.511	1.00	0.00
ATOM	222	NZ	LYS	25	10.454	-31.091	-8.272	1.00	0.00
ATOM	223	C	LYS	25	4.375	-34.957	-8.279	1.00	0.00
ATOM	224	O	LYS	25	4.263	-36.038	-8.854	1.00	0.00
ATOM	225	N	TYR	26	3.503	-34.537	-7.351	1.00	0.00
ATOM	226	CA	TYR	26	2.359	-35.336	-6.910	1.00	0.00
ATOM	227	CB	TYR	26	2.648	-35.852	-5.491	1.00	0.00
ATOM	228	CG	TYR	26	4.054	-36.374	-5.272	1.00	0.00
ATOM	229	CD1	TYR	26	4.522	-37.482	-6.002	1.00	0.00
ATOM	230	CE1	TYR	26	5.829	-37.961	-5.800	1.00	0.00
ATOM	231	CZ	TYR	26	6.668	-37.333	-4.864	1.00	0.00
ATOM	232	OH	TYR	26	7.937	-37.793	-4.660	1.00	0.00
ATOM	233	CE2	TYR	26	6.201	-36.229	-4.133	1.00	0.00
ATOM	234	CD2	TYR	26	4.898	-35.750	-4.335	1.00	0.00
ATOM	235	C	TYR	26	1.014	-34.602	-6.943	1.00	0.00
ATOM	236	O	TYR	26	0.056	-35.086	-6.341	1.00	0.00
ATOM	237	N	GLY	27	0.928	-33.458	-7.629	1.00	0.00
ATOM	238	CA	GLY	27	-0.305	-32.695	-7.741	1.00	0.00

35					36				
ATOM	239	C	GLY	27	-0.529	-31.775	-6.540	1.00	0.00
ATOM	240	O	GLY	27	-0.108	-32.076	-5.426	1.00	0.00
ATOM	241	N	GLU	28	-1.198	-30.644	-6.785	1.00	0.00
ATOM	242	CA	GLU	28	-1.509	-29.610	-5.808	1.00	0.00
ATOM	243	CB	GLU	28	-2.164	-28.426	-6.540	1.00	0.00
ATOM	244	CG	GLU	28	-2.307	-27.187	-5.657	1.00	0.00
ATOM	245	CD	GLU	28	-2.910	-26.030	-6.443	1.00	0.00
ATOM	246	OE1	GLU	28	-2.141	-25.165	-6.917	1.00	0.00
ATOM	247	OE2	GLU	28	-4.153	-25.996	-6.555	1.00	0.00
ATOM	248	C	GLU	28	-2.337	-30.155	-4.642	1.00	0.00
ATOM	249	O	GLU	28	-1.802	-30.361	-3.553	1.00	0.00
ATOM	250	N	GLY	29	-3.633	-30.389	-4.867	1.00	0.00
ATOM	251	CA	GLY	29	-4.581	-30.901	-3.885	1.00	0.00
ATOM	252	C	GLY	29	-4.369	-32.382	-3.566	1.00	0.00
ATOM	253	O	GLY	29	-5.281	-33.190	-3.732	1.00	0.00
ATOM	254	N	ASN	30	-3.165	-32.736	-3.104	1.00	0.00
ATOM	255	CA	ASN	30	-2.752	-34.087	-2.740	1.00	0.00
ATOM	256	CB	ASN	30	-2.118	-34.781	-3.951	1.00	0.00
ATOM	257	CG	ASN	30	-3.085	-34.986	-5.112	1.00	0.00
ATOM	258	OD1	ASN	30	-3.733	-36.028	-5.192	1.00	0.00
ATOM	259	ND2	ASN	30	-3.150	-34.025	-6.031	1.00	0.00
ATOM	260	C	ASN	30	-1.738	-33.972	-1.601	1.00	0.00
ATOM	261	O	ASN	30	-0.652	-34.551	-1.644	1.00	0.00
ATOM	262	N	TRP	31	-2.096	-33.194	-0.578	1.00	0.00
ATOM	263	CA	TRP	31	-1.248	-32.920	0.574	1.00	0.00
ATOM	264	CB	TRP	31	-1.842	-31.797	1.441	1.00	0.00
ATOM	265	CG	TRP	31	-2.636	-30.820	0.628	1.00	0.00
ATOM	266	CD1	TRP	31	-3.984	-30.799	0.530	1.00	0.00
ATOM	267	NE1	TRP	31	-4.373	-29.801	-0.333	1.00	0.00
ATOM	268	CE2	TRP	31	-3.283	-29.120	-0.834	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.157	-28.052	-1.732	1.00	0.00
ATOM	270	CH2	TRP	31	-1.879	-27.579	-2.056	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.742	-28.174	-1.483	1.00	0.00
ATOM	272	CE3	TRP	31	-0.880	-29.250	-0.586	1.00	0.00
ATOM	273	CD2	TRP	31	-2.154	-29.750	-0.236	1.00	0.00
ATOM	274	C	TRP	31	-0.887	-34.202	1.322	1.00	0.00
ATOM	275	O	TRP	31	0.197	-34.285	1.893	1.00	0.00
ATOM	276	N	SER	32	-1.763	-35.216	1.291	1.00	0.00
ATOM	277	CA	SER	32	-1.507	-36.507	1.911	1.00	0.00
ATOM	278	CB	SER	32	-2.730	-37.419	1.765	1.00	0.00
ATOM	279	OG	SER	32	-3.148	-37.502	0.415	1.00	0.00
ATOM	280	C	SER	32	-0.280	-37.130	1.246	1.00	0.00
ATOM	281	O	SER	32	0.696	-37.464	1.918	1.00	0.00
ATOM	282	N	LYS	33	-0.327	-37.266	-0.086	1.00	0.00
ATOM	283	CA	LYS	33	0.768	-37.815	-0.867	1.00	0.00
ATOM	284	CB	LYS	33	0.453	-37.798	-2.369	1.00	0.00
ATOM	285	CG	LYS	33	-0.813	-38.591	-2.739	1.00	0.00
ATOM	286	CD	LYS	33	-0.735	-39.149	-4.171	1.00	0.00
ATOM	287	CE	LYS	33	-0.538	-38.073	-5.252	1.00	0.00
ATOM	288	NZ	LYS	33	-1.765	-37.765	-6.004	1.00	0.00

(20)

特開2003-135087

37

38

ATOM	289	C	LYS	33	2.042	-37.023	-0.576	1.00	0.00
ATOM	290	O	LYS	33	3.071	-37.617	-0.271	1.00	0.00
ATOM	291	N	ILE	34	1.973	-35.689	-0.656	1.00	0.00
ATOM	292	CA	ILE	34	3.114	-34.818	-0.394	1.00	0.00
ATOM	293	CB	ILE	34	2.719	-33.341	-0.585	1.00	0.00
ATOM	294	CG2	ILE	34	3.857	-32.413	-0.132	1.00	0.00
ATOM	295	CG1	ILE	34	2.380	-33.084	-2.067	1.00	0.00
ATOM	296	CD1	ILE	34	1.745	-31.713	-2.325	1.00	0.00
ATOM	297	C	ILE	34	3.720	-35.118	0.985	1.00	0.00
ATOM	298	O	ILE	34	4.933	-35.275	1.087	1.00	0.00
ATOM	299	N	LEU	35	2.894	-35.212	2.036	1.00	0.00
ATOM	300	CA	LEU	35	3.342	-35.510	3.394	1.00	0.00
ATOM	301	CB	LEU	35	2.173	-35.393	4.385	1.00	0.00
ATOM	302	CG	LEU	35	1.776	-33.936	4.670	1.00	0.00
ATOM	303	CD1	LEU	35	0.362	-33.881	5.256	1.00	0.00
ATOM	304	CD2	LEU	35	2.746	-33.272	5.656	1.00	0.00
ATOM	305	C	LEU	35	3.971	-36.904	3.486	1.00	0.00
ATOM	306	O	LEU	35	4.921	-37.107	4.242	1.00	0.00
ATOM	307	N	LEU	36	3.459	-37.880	2.731	1.00	0.00
ATOM	308	CA	LEU	36	4.006	-39.229	2.748	1.00	0.00
ATOM	309	CB	LEU	36	3.027	-40.216	2.095	1.00	0.00
ATOM	310	CG	LEU	36	1.763	-40.448	2.941	1.00	0.00
ATOM	311	CD1	LEU	36	0.683	-41.111	2.079	1.00	0.00
ATOM	312	CD2	LEU	36	2.044	-41.339	4.159	1.00	0.00
ATOM	313	C	LEU	36	5.374	-39.247	2.064	1.00	0.00
ATOM	314	O	LEU	36	6.340	-39.759	2.630	1.00	0.00
ATOM	315	N	HIS	37	5.459	-38.689	0.856	1.00	0.00
ATOM	316	CA	HIS	37	6.682	-38.635	0.073	1.00	0.00
ATOM	317	CB	HIS	37	6.377	-38.089	-1.327	1.00	0.00
ATOM	318	CG	HIS	37	5.482	-38.978	-2.153	1.00	0.00
ATOM	319	ND1	HIS	37	5.794	-40.299	-2.432	1.00	0.00
ATOM	320	CE1	HIS	37	4.797	-40.797	-3.184	1.00	0.00
ATOM	321	NE2	HIS	37	3.837	-39.903	-3.429	1.00	0.00
ATOM	322	CD2	HIS	37	4.277	-38.756	-2.775	1.00	0.00
ATOM	323	C	HIS	37	7.774	-37.799	0.744	1.00	0.00
ATOM	324	O	HIS	37	8.882	-38.295	0.935	1.00	0.00
ATOM	325	N	TYR	38	7.475	-36.537	1.075	1.00	0.00
ATOM	326	CA	TYR	38	8.428	-35.603	1.668	1.00	0.00
ATOM	327	CB	TYR	38	8.549	-34.352	0.793	1.00	0.00
ATOM	328	CG	TYR	38	8.844	-34.528	-0.691	1.00	0.00
ATOM	329	CD1	TYR	38	8.316	-33.599	-1.609	1.00	0.00
ATOM	330	CE1	TYR	38	8.583	-33.730	-2.983	1.00	0.00
ATOM	331	CZ	TYR	38	9.374	-34.791	-3.447	1.00	0.00
ATOM	332	OH	TYR	38	9.623	-34.910	-4.785	1.00	0.00
ATOM	333	CE2	TYR	38	9.902	-35.722	-2.537	1.00	0.00
ATOM	334	CD2	TYR	38	9.641	-35.591	-1.162	1.00	0.00
ATOM	335	C	TYR	38	8.025	-35.184	3.083	1.00	0.00
ATOM	336	O	TYR	38	6.849	-34.963	3.367	1.00	0.00
ATOM	337	N	LYS	39	9.022	-35.065	3.966	1.00	0.00
ATOM	338	CA	LYS	39	8.869	-34.663	5.360	1.00	0.00

39				40				
ATOM	339	CB	LYS	39	9.948	-35.356	6.211	1.00 0.00
ATOM	340	CG	LYS	39	9.501	-36.646	6.921	1.00 0.00
ATOM	341	CD	LYS	39	8.984	-37.785	6.023	1.00 0.00
ATOM	342	CE	LYS	39	7.477	-37.669	5.764	1.00 0.00
ATOM	343	NZ	LYS	39	6.894	-38.869	5.141	1.00 0.00
ATOM	344	C	LYS	39	8.935	-33.139	5.499	1.00 0.00
ATOM	345	O	LYS	39	9.408	-32.433	4.610	1.00 0.00
ATOM	346	N	PHE	40	8.445	-32.662	6.647	1.00 0.00
ATOM	347	CA	PHE	40	8.383	-31.273	7.073	1.00 0.00
ATOM	348	CB	PHE	40	7.002	-30.679	6.751	1.00 0.00
ATOM	349	CG	PHE	40	6.636	-30.560	5.282	1.00 0.00
ATOM	350	CD1	PHE	40	6.189	-31.683	4.561	1.00 0.00
ATOM	351	CE1	PHE	40	5.845	-31.562	3.203	1.00 0.00
ATOM	352	CZ	PHE	40	5.941	-30.315	2.560	1.00 0.00
ATOM	353	CE2	PHE	40	6.387	-29.194	3.280	1.00 0.00
ATOM	354	CD2	PHE	40	6.734	-29.313	4.635	1.00 0.00
ATOM	355	C	PHE	40	8.609	-31.270	8.589	1.00 0.00
ATOM	356	O	PHE	40	8.675	-32.340	9.194	1.00 0.00
ATOM	357	N	ASN	41	8.717	-30.087	9.208	1.00 0.00
ATOM	358	CA	ASN	41	8.928	-29.963	10.648	1.00 0.00
ATOM	359	CB	ASN	41	9.022	-28.479	11.040	1.00 0.00
ATOM	360	CG	ASN	41	9.215	-28.299	12.547	1.00 0.00
ATOM	361	OD1	ASN	41	9.830	-29.133	13.204	1.00 0.00
ATOM	362	ND2	ASN	41	8.687	-27.215	13.112	1.00 0.00
ATOM	363	C	ASN	41	7.822	-30.683	11.429	1.00 0.00
ATOM	364	O	ASN	41	8.078	-31.683	12.095	1.00 0.00
ATOM	365	N	ASN	42	6.591	-30.170	11.338	1.00 0.00
ATOM	366	CA	ASN	42	5.415	-30.723	11.999	1.00 0.00
ATOM	367	CB	ASN	42	5.470	-30.457	13.513	1.00 0.00
ATOM	368	CG	ASN	42	4.250	-31.016	14.244	1.00 0.00
ATOM	369	OD1	ASN	42	3.532	-31.865	13.722	1.00 0.00
ATOM	370	ND2	ASN	42	4.011	-30.547	15.469	1.00 0.00
ATOM	371	C	ASN	42	4.192	-30.078	11.349	1.00 0.00
ATOM	372	O	ASN	42	3.559	-29.200	11.934	1.00 0.00
ATOM	373	N	ARG	43	3.891	-30.497	10.115	1.00 0.00
ATOM	374	CA	ARG	43	2.792	-29.975	9.316	1.00 0.00
ATOM	375	CB	ARG	43	3.334	-29.527	7.953	1.00 0.00
ATOM	376	CG	ARG	43	3.858	-28.086	7.910	1.00 0.00
ATOM	377	CD	ARG	43	4.995	-27.808	8.892	1.00 0.00
ATOM	378	NE	ARG	43	5.539	-26.456	8.717	1.00 0.00
ATOM	379	CZ	ARG	43	5.060	-25.350	9.307	1.00 0.00
ATOM	380	NH1	ARG	43	3.882	-25.375	9.946	1.00 0.00
ATOM	381	NH2	ARG	43	5.780	-24.227	9.241	1.00 0.00
ATOM	382	C	ARG	43	1.696	-31.025	9.122	1.00 0.00
ATOM	383	O	ARG	43	1.902	-32.211	9.370	1.00 0.00
ATOM	384	N	THR	44	0.532	-30.553	8.662	1.00 0.00
ATOM	385	CA	THR	44	-0.662	-31.332	8.381	1.00 0.00
ATOM	386	CB	THR	44	-1.718	-31.043	9.462	1.00 0.00
ATOM	387	CG2	THR	44	-1.183	-31.282	10.879	1.00 0.00
ATOM	388	OG1	THR	44	-2.168	-29.705	9.338	1.00 0.00

(22)

特開2003-135087

41				42				
ATOM	389	C	THR	44	-1.223	-30.908	7.022	1.00 0.00
ATOM	390	O	THR	44	-0.749	-29.942	6.419	1.00 0.00
ATOM	391	N	SER	45	-2.265	-31.613	6.565	1.00 0.00
ATOM	392	CA	SER	45	-2.959	-31.297	5.325	1.00 0.00
ATOM	393	CB	SER	45	-4.116	-32.283	5.131	1.00 0.00
ATOM	394	OG	SER	45	-4.879	-31.947	3.993	1.00 0.00
ATOM	395	C	SER	45	-3.465	-29.851	5.402	1.00 0.00
ATOM	396	O	SER	45	-3.323	-29.091	4.445	1.00 0.00
ATOM	397	N	VAL	46	-4.033	-29.478	6.560	1.00 0.00
ATOM	398	CA	VAL	46	-4.538	-28.139	6.825	1.00 0.00
ATOM	399	CB	VAL	46	-5.095	-28.027	8.260	1.00 0.00
ATOM	400	CG1	VAL	46	-5.607	-26.608	8.549	1.00 0.00
ATOM	401	CG2	VAL	46	-6.252	-29.004	8.497	1.00 0.00
ATOM	402	C	VAL	46	-3.415	-27.131	6.584	1.00 0.00
ATOM	403	O	VAL	46	-3.587	-26.229	5.769	1.00 0.00
ATOM	404	N	MET	47	-2.279	-27.293	7.281	1.00 0.00
ATOM	405	CA	MET	47	-1.141	-26.390	7.135	1.00 0.00
ATOM	406	CB	MET	47	0.061	-26.851	7.971	1.00 0.00
ATOM	407	CG	MET	47	-0.147	-26.908	9.490	1.00 0.00
ATOM	408	SD	MET	47	-0.410	-25.331	10.341	1.00 0.00
ATOM	409	CE	MET	47	-2.214	-25.235	10.308	1.00 0.00
ATOM	410	C	MET	47	-0.724	-26.245	5.671	1.00 0.00
ATOM	411	O	MET	47	-0.735	-25.139	5.141	1.00 0.00
ATOM	412	N	LEU	48	-0.346	-27.349	5.017	1.00 0.00
ATOM	413	CA	LEU	48	0.104	-27.324	3.629	1.00 0.00
ATOM	414	CB	LEU	48	0.360	-28.744	3.106	1.00 0.00
ATOM	415	CG	LEU	48	1.812	-29.183	3.322	1.00 0.00
ATOM	416	CD1	LEU	48	2.141	-29.377	4.799	1.00 0.00
ATOM	417	CD2	LEU	48	2.068	-30.503	2.602	1.00 0.00
ATOM	418	C	LEU	48	-0.884	-26.604	2.717	1.00 0.00
ATOM	419	O	LEU	48	-0.494	-25.703	1.974	1.00 0.00
ATOM	420	N	LYS	49	-2.157	-27.006	2.765	1.00 0.00
ATOM	421	CA	LYS	49	-3.158	-26.396	1.917	1.00 0.00
ATOM	422	CB	LYS	49	-4.501	-27.112	2.027	1.00 0.00
ATOM	423	CG	LYS	49	-5.366	-26.681	0.832	1.00 0.00
ATOM	424	CD	LYS	49	-6.850	-26.715	1.155	1.00 0.00
ATOM	425	CE	LYS	49	-7.296	-25.503	1.985	1.00 0.00
ATOM	426	NZ	LYS	49	-7.394	-24.281	1.164	1.00 0.00
ATOM	427	C	LYS	49	-3.319	-24.907	2.207	1.00 0.00
ATOM	428	O	LYS	49	-3.290	-24.120	1.266	1.00 0.00
ATOM	429	N	ASP	50	-3.505	-24.497	3.468	1.00 0.00
ATOM	430	CA	ASP	50	-3.682	-23.082	3.776	1.00 0.00
ATOM	431	CB	ASP	50	-4.264	-22.835	5.179	1.00 0.00
ATOM	432	CG	ASP	50	-3.339	-23.127	6.355	1.00 0.00
ATOM	433	OD1	ASP	50	-3.853	-23.704	7.341	1.00 0.00
ATOM	434	OD2	ASP	50	-2.169	-22.700	6.289	1.00 0.00
ATOM	435	C	ASP	50	-2.445	-22.260	3.386	1.00 0.00
ATOM	436	O	ASP	50	-2.582	-21.112	2.961	1.00 0.00
ATOM	437	N	ARG	51	-1.246	-22.851	3.470	1.00 0.00
ATOM	438	CA	ARG	51	-0.014	-22.194	3.056	1.00 0.00

43

44

ATOM	439	CB	ARG	51	1.203	-23.088	3.354	1.00	0.00
ATOM	440	CG	ARG	51	2.432	-22.308	3.819	1.00	0.00
ATOM	441	CD	ARG	51	3.021	-21.279	2.854	1.00	0.00
ATOM	442	NE	ARG	51	4.022	-20.472	3.566	1.00	0.00
ATOM	443	CZ	ARG	51	4.790	-19.506	3.037	1.00	0.00
ATOM	444	NH1	ARG	51	5.398	-18.626	3.845	1.00	0.00
ATOM	445	NH2	ARG	51	4.956	-19.417	1.714	1.00	0.00
ATOM	446	C	ARG	51	-0.105	-21.918	1.556	1.00	0.00
ATOM	447	O	ARG	51	0.050	-20.778	1.112	1.00	0.00
ATOM	448	N	TRP	52	-0.365	-22.974	0.770	1.00	0.00
ATOM	449	CA	TRP	52	-0.472	-22.865	-0.665	1.00	0.00
ATOM	450	CB	TRP	52	-0.570	-24.262	-1.276	1.00	0.00
ATOM	451	CG	TRP	52	-0.243	-24.260	-2.730	1.00	0.00
ATOM	452	CD1	TRP	52	-1.145	-24.277	-3.728	1.00	0.00
ATOM	453	NE1	TRP	52	-0.497	-24.255	-4.946	1.00	0.00
ATOM	454	CE2	TRP	52	0.873	-24.218	-4.782	1.00	0.00
ATOM	455	CZ2	TRP	52	1.951	-24.178	-5.680	1.00	0.00
ATOM	456	CH2	TRP	52	3.261	-24.146	-5.179	1.00	0.00
ATOM	457	CZ3	TRP	52	3.483	-24.157	-3.791	1.00	0.00
ATOM	458	CE3	TRP	52	2.397	-24.193	-2.897	1.00	0.00
ATOM	459	CD2	TRP	52	1.066	-24.225	-3.369	1.00	0.00
ATOM	460	C	TRP	52	-1.633	-21.952	-1.071	1.00	0.00
ATOM	461	O	TRP	52	-1.547	-21.277	-2.092	1.00	0.00
ATOM	462	N	ARG	53	-2.706	-21.919	-0.270	1.00	0.00
ATOM	463	CA	ARG	53	-3.884	-21.093	-0.488	1.00	0.00
ATOM	464	CB	ARG	53	-4.931	-21.370	0.601	1.00	0.00
ATOM	465	CG	ARG	53	-6.288	-20.700	0.342	1.00	0.00
ATOM	466	CD	ARG	53	-6.862	-20.064	1.616	1.00	0.00
ATOM	467	NE	ARG	53	-6.900	-20.994	2.759	1.00	0.00
ATOM	468	CZ	ARG	53	-7.525	-20.745	3.924	1.00	0.00
ATOM	469	NH1	ARG	53	-8.165	-19.585	4.107	1.00	0.00
ATOM	470	NH2	ARG	53	-7.514	-21.659	4.902	1.00	0.00
ATOM	471	C	ARG	53	-3.459	-19.627	-0.478	1.00	0.00
ATOM	472	O	ARG	53	-3.663	-18.930	-1.471	1.00	0.00
ATOM	473	N	THR	54	-2.868	-19.165	0.634	1.00	0.00
ATOM	474	CA	THR	54	-2.406	-17.789	0.767	1.00	0.00
ATOM	475	CB	THR	54	-1.714	-17.583	2.122	1.00	0.00
ATOM	476	CG2	THR	54	-1.401	-16.101	2.342	1.00	0.00
ATOM	477	OG1	THR	54	-2.541	-18.029	3.175	1.00	0.00
ATOM	478	C	THR	54	-1.444	-17.451	-0.370	1.00	0.00
ATOM	479	O	THR	54	-1.556	-16.396	-0.994	1.00	0.00
ATOM	480	N	MET	55	-0.498	-18.359	-0.633	1.00	0.00
ATOM	481	CA	MET	55	0.491	-18.189	-1.678	1.00	0.00
ATOM	482	CB	MET	55	1.443	-19.394	-1.661	1.00	0.00
ATOM	483	CG	MET	55	2.633	-19.275	-2.623	1.00	0.00
ATOM	484	SD	MET	55	2.275	-19.358	-4.399	1.00	0.00
ATOM	485	CE	MET	55	1.539	-21.005	-4.485	1.00	0.00
ATOM	486	C	MET	55	-0.188	-17.924	-3.027	1.00	0.00
ATOM	487	O	MET	55	0.021	-16.858	-3.604	1.00	0.00
ATOM	488	N	LYS	56	-0.994	-18.866	-3.539	1.00	0.00

(24)

特開2003-135087

45				46			
ATOM	489	CA	LYS	56	-1.655	-18.699	-4.827 1.00 0.00
ATOM	490	CB	LYS	56	-2.308	-19.997	-5.336 1.00 0.00
ATOM	491	CG	LYS	56	-3.604	-20.422	-4.622 1.00 0.00
ATOM	492	CD	LYS	56	-4.502	-21.270	-5.532 1.00 0.00
ATOM	493	CE	LYS	56	-3.850	-22.593	-5.944 1.00 0.00
ATOM	494	NZ	LYS	56	-4.752	-23.399	-6.787 1.00 0.00
ATOM	495	C	LYS	56	-2.627	-17.517	-4.856 1.00 0.00
ATOM	496	O	LYS	56	-2.750	-16.864	-5.886 1.00 0.00
ATOM	497	N	LYS	57	-3.321	-17.234	-3.747 1.00 0.00
ATOM	498	CA	LYS	57	-4.286	-16.143	-3.671 1.00 0.00
ATOM	499	CB	LYS	57	-4.858	-16.072	-2.245 1.00 0.00
ATOM	500	CG	LYS	57	-5.850	-14.925	-1.996 1.00 0.00
ATOM	501	CD	LYS	57	-7.105	-15.033	-2.876 1.00 0.00
ATOM	502	CE	LYS	57	-8.117	-13.917	-2.580 1.00 0.00
ATOM	503	NZ	LYS	57	-8.705	-14.026	-1.231 1.00 0.00
ATOM	504	C	LYS	57	-3.675	-14.809	-4.106 1.00 0.00
ATOM	505	O	LYS	57	-4.361	-14.000	-4.729 1.00 0.00
ATOM	506	N	LEU	58	-2.401	-14.580	-3.768 1.00 0.00
ATOM	507	CA	LEU	58	-1.691	-13.347	-4.079 1.00 0.00
ATOM	508	CB	LEU	58	-0.928	-12.899	-2.823 1.00 0.00
ATOM	509	CG	LEU	58	-1.816	-12.683	-1.584 1.00 0.00
ATOM	510	CD1	LEU	58	-0.918	-12.390	-0.378 1.00 0.00
ATOM	511	CD2	LEU	58	-2.797	-11.522	-1.779 1.00 0.00
ATOM	512	C	LEU	58	-0.712	-13.482	-5.250 1.00 0.00
ATOM	513	O	LEU	58	-0.554	-12.536	-6.019 1.00 0.00
ATOM	514	N	LYS	59	-0.019	-14.622	-5.363 1.00 0.00
ATOM	515	CA	LYS	59	1.027	-14.853	-6.358 1.00 0.00
ATOM	516	CB	LYS	59	2.238	-15.485	-5.653 1.00 0.00
ATOM	517	CG	LYS	59	2.613	-14.705	-4.382 1.00 0.00
ATOM	518	CD	LYS	59	3.844	-15.297	-3.685 1.00 0.00
ATOM	519	CE	LYS	59	3.996	-14.732	-2.265 1.00 0.00
ATOM	520	NZ	LYS	59	2.925	-15.203	-1.363 1.00 0.00
ATOM	521	C	LYS	59	0.589	-15.672	-7.578 1.00 0.00
ATOM	522	O	LYS	59	1.222	-15.572	-8.627 1.00 0.00
ATOM	523	N	LEU	60	-0.476	-16.473	-7.457 1.00 0.00
ATOM	524	CA	LEU	60	-1.042	-17.303	-8.520 1.00 0.00
ATOM	525	CB	LEU	60	-1.721	-16.426	-9.587 1.00 0.00
ATOM	526	CG	LEU	60	-2.915	-15.622	-9.044 1.00 0.00
ATOM	527	CD1	LEU	60	-3.253	-14.487	-10.018 1.00 0.00
ATOM	528	CD2	LEU	60	-4.159	-16.503	-8.866 1.00 0.00
ATOM	529	C	LEU	60	-0.041	-18.288	-9.139 1.00 0.00
ATOM	530	O	LEU	60	0.422	-18.082	-10.259 1.00 0.00
ATOM	531	N	ILE	61	0.257	-19.377	-8.418 1.00 0.00
ATOM	532	CA	ILE	61	1.134	-20.456	-8.867 1.00 0.00
ATOM	533	CB	ILE	61	2.535	-20.371	-8.221 1.00 0.00
ATOM	534	CG2	ILE	61	3.375	-21.631	-8.475 1.00 0.00
ATOM	535	CG1	ILE	61	3.322	-19.147	-8.722 1.00 0.00
ATOM	536	CD1	ILE	61	3.323	-18.053	-7.659 1.00 0.00
ATOM	537	C	ILE	61	0.439	-21.787	-8.570 1.00 0.00
ATOM	538	O	ILE	61	-0.253	-21.926	-7.561 1.00 0.00

(25)

特開2003-135087

47					48				
ATOM	539	N	SER	62	0.636	-22.757	-9.465	1.00	0.00
ATOM	540	CA	SER	62	0.098	-24.107	-9.416	1.00	0.00
ATOM	541	CB	SER	62	-1.403	-24.077	-9.739	1.00	0.00
ATOM	542	OG	SER	62	-1.619	-23.531	-11.025	1.00	0.00
ATOM	543	C	SER	62	0.910	-24.948	-10.409	1.00	0.00
ATOM	544	O	SER	62	1.967	-24.508	-10.867	1.00	0.00
ATOM	545	N	SER	63	0.434	-26.148	-10.754	1.00	0.00
ATOM	546	CA	SER	63	1.103	-27.027	-11.701	1.00	0.00
ATOM	547	CB	SER	63	2.261	-27.762	-11.010	1.00	0.00
ATOM	548	OG	SER	63	3.008	-28.492	-11.959	1.00	0.00
ATOM	549	C	SER	63	0.067	-27.973	-12.305	1.00	0.00
ATOM	550	O	SER	63	-0.246	-27.875	-13.489	1.00	0.00
ATOM	551	N	ASP	64	-0.464	-28.873	-11.472	1.00	0.00
ATOM	552	CA	ASP	64	-1.481	-29.858	-11.806	1.00	0.00
ATOM	553	CB	ASP	64	-0.858	-31.027	-12.592	1.00	0.00
ATOM	554	CG	ASP	64	-1.854	-31.714	-13.528	1.00	0.00
ATOM	555	OD1	ASP	64	-3.019	-31.903	-13.112	1.00	0.00
ATOM	556	OD2	ASP	64	-1.435	-32.021	-14.666	1.00	0.00
ATOM	557	C	ASP	64	-2.096	-30.303	-10.475	1.00	0.00
ATOM	558	O	ASP	64	-1.749	-29.750	-9.430	1.00	0.00
ATOM	559	N	SER	65	-3.000	-31.283	-10.491	1.00	0.00
ATOM	560	CA	SER	65	-3.661	-31.806	-9.301	1.00	0.00
ATOM	561	CB	SER	65	-4.689	-30.798	-8.762	1.00	0.00
ATOM	562	OG	SER	65	-4.934	-31.026	-7.387	1.00	0.00
ATOM	563	C	SER	65	-4.293	-33.178	-9.551	1.00	0.00
ATOM	564	O	SER	65	-4.403	-33.964	-8.611	1.00	0.00
ATOM	565	N	GLU	66	-4.714	-33.479	-10.789	1.00	0.00
ATOM	566	CA	GLU	66	-5.327	-34.755	-11.137	1.00	0.00
ATOM	567	CB	GLU	66	-6.288	-34.564	-12.320	1.00	0.00
ATOM	568	CG	GLU	66	-7.436	-33.607	-11.959	1.00	0.00
ATOM	569	CD	GLU	66	-8.485	-33.547	-13.066	1.00	0.00
ATOM	570	OE1	GLU	66	-9.160	-34.580	-13.265	1.00	0.00
ATOM	571	OE2	GLU	66	-8.601	-32.468	-13.688	1.00	0.00
ATOM	572	C	GLU	66	-4.239	-35.799	-11.415	1.00	0.00
ATOM	573	O	GLU	66	-4.196	-36.399	-12.490	1.00	0.00
ATOM	574	N	ASP	67	-3.367	-36.006	-10.425	1.00	0.00
ATOM	575	CA	ASP	67	-2.250	-36.933	-10.438	1.00	0.00
ATOM	576	CB	ASP	67	-1.059	-36.328	-11.199	1.00	0.00
ATOM	577	CG	ASP	67	-0.426	-35.132	-10.487	1.00	0.00
ATOM	578	OD1	ASP	67	-1.062	-34.053	-10.490	1.00	0.00
ATOM	579	OD2	ASP	67	0.702	-35.311	-9.976	1.00	0.00
ATOM	580	C	ASP	67	-1.890	-37.238	-8.984	1.00	0.00
ATOM	581	OT1	ASP	67	-1.832	-38.442	-8.643	1.00	0.00
ATOM	582	OT2	ASP	67	-2.086	-36.308	-8.169	1.00	0.00
ATOM	583	O5'	GUA	68	-6.552	-39.568	11.338	1.00	0.00
ATOM	584	C5'	GUA	68	-6.299	-40.427	10.246	1.00	0.00
ATOM	585	C4'	GUA	68	-6.654	-39.743	8.921	1.00	0.00
ATOM	586	O4'	GUA	68	-8.009	-39.338	8.903	1.00	0.00
ATOM	587	C1'	GUA	68	-8.164	-38.378	7.881	1.00	0.00
ATOM	588	N9	GUA	68	-9.383	-37.574	8.109	1.00	0.00

49				50				
ATOM	589	C8	GUA	68	-9.770	-36.951	9.265	1.00 0.00
ATOM	590	N7	GUA	68	-10.925	-36.352	9.192	1.00 0.00
ATOM	591	C5	GUA	68	-11.331	-36.576	7.880	1.00 0.00
ATOM	592	C6	GUA	68	-12.512	-36.155	7.198	1.00 0.00
ATOM	593	O6	GUA	68	-13.478	-35.549	7.656	1.00 0.00
ATOM	594	N1	GUA	68	-12.498	-36.503	5.852	1.00 0.00
ATOM	595	C2	GUA	68	-11.487	-37.213	5.236	1.00 0.00
ATOM	596	N2	GUA	68	-11.600	-37.450	3.928	1.00 0.00
ATOM	597	N3	GUA	68	-10.396	-37.645	5.884	1.00 0.00
ATOM	598	C4	GUA	68	-10.375	-37.292	7.198	1.00 0.00
ATOM	599	C3'	GUA	68	-5.842	-38.467	8.651	1.00 0.00
ATOM	600	C2'	GUA	68	-6.908	-37.541	8.053	1.00 0.00
ATOM	601	O3'	GUA	68	-4.781	-38.784	7.758	1.00 0.00
ATOM	602	P	THY	69	-3.750	-37.683	7.158	1.00 0.00
ATOM	603	OP1	THY	69	-2.650	-38.405	6.481	1.00 0.00
ATOM	604	OP2	THY	69	-3.441	-36.697	8.217	1.00 0.00
ATOM	605	O5'	THY	69	-4.623	-36.942	6.022	1.00 0.00
ATOM	606	C5'	THY	69	-5.317	-37.684	5.035	1.00 0.00
ATOM	607	C4'	THY	69	-6.409	-36.844	4.360	1.00 0.00
ATOM	608	O4'	THY	69	-7.471	-36.402	5.172	1.00 0.00
ATOM	609	C1'	THY	69	-8.092	-35.311	4.531	1.00 0.00
ATOM	610	N1	THY	69	-8.974	-34.596	5.490	1.00 0.00
ATOM	611	C6	THY	69	-8.570	-34.422	6.792	1.00 0.00
ATOM	612	C5	THY	69	-9.357	-33.785	7.694	1.00 0.00
ATOM	613	C7	THY	69	-8.789	-33.623	9.094	1.00 0.00
ATOM	614	C4	THY	69	-10.667	-33.283	7.333	1.00 0.00
ATOM	615	O4	THY	69	-11.446	-32.700	8.081	1.00 0.00
ATOM	616	N3	THY	69	-11.012	-33.514	6.011	1.00 0.00
ATOM	617	C2	THY	69	-10.221	-34.139	5.059	1.00 0.00
ATOM	618	O2	THY	69	-10.627	-34.266	3.907	1.00 0.00
ATOM	619	C3'	THY	69	-5.872	-35.578	3.682	1.00 0.00
ATOM	620	C2'	THY	69	-6.857	-34.503	4.155	1.00 0.00
ATOM	621	O3'	THY	69	-5.831	-35.723	2.273	1.00 0.00
ATOM	622	P	THY	70	-5.134	-34.601	1.344	1.00 0.00
ATOM	623	OP1	THY	70	-4.600	-35.250	0.124	1.00 0.00
ATOM	624	OP2	THY	70	-4.208	-33.831	2.196	1.00 0.00
ATOM	625	O5'	THY	70	-6.341	-33.625	0.950	1.00 0.00
ATOM	626	C5'	THY	70	-7.395	-34.034	0.103	1.00 0.00
ATOM	627	C4'	THY	70	-8.534	-33.015	0.221	1.00 0.00
ATOM	628	O4'	THY	70	-8.957	-32.911	1.565	1.00 0.00
ATOM	629	C1'	THY	70	-9.684	-31.711	1.683	1.00 0.00
ATOM	630	N1	THY	70	-9.839	-31.296	3.102	1.00 0.00
ATOM	631	C6	THY	70	-8.767	-31.353	3.957	1.00 0.00
ATOM	632	C5	THY	70	-8.881	-30.955	5.247	1.00 0.00
ATOM	633	C7	THY	70	-7.624	-31.065	6.085	1.00 0.00
ATOM	634	C4	THY	70	-10.131	-30.452	5.780	1.00 0.00
ATOM	635	O4	THY	70	-10.308	-30.035	6.922	1.00 0.00
ATOM	636	N3	THY	70	-11.174	-30.469	4.871	1.00 0.00
ATOM	637	C2	THY	70	-11.072	-30.803	3.528	1.00 0.00
ATOM	638	O2	THY	70	-12.023	-30.623	2.773	1.00 0.00

51				52				
ATOM	639	C3' THY	70	-8.117	-31.585	-0.149	1.00	0.00
ATOM	640	C2' THY	70	-8.814	-30.722	0.910	1.00	0.00
ATOM	641	O3' THY	70	-8.507	-31.272	-1.473	1.00	0.00
ATOM	642	P ADE	71	-8.086	-29.877	-2.165	1.00	0.00
ATOM	643	OP1 ADE	71	-6.775	-29.455	-1.613	1.00	0.00
ATOM	644	OP2 ADE	71	-8.265	-30.000	-3.626	1.00	0.00
ATOM	645	O5' ADE	71	-9.188	-28.855	-1.601	1.00	0.00
ATOM	646	C5' ADE	71	-10.532	-28.840	-2.049	1.00	0.00
ATOM	647	C4' ADE	71	-11.299	-27.716	-1.331	1.00	0.00
ATOM	648	O4' ADE	71	-11.625	-28.090	0.015	1.00	0.00
ATOM	649	C1' ADE	71	-11.396	-26.981	0.864	1.00	0.00
ATOM	650	N9 ADE	71	-11.155	-27.295	2.298	1.00	0.00
ATOM	651	C8 ADE	71	-10.020	-27.840	2.848	1.00	0.00
ATOM	652	N7 ADE	71	-9.936	-27.775	4.141	1.00	0.00
ATOM	653	C5 ADE	71	-11.127	-27.168	4.494	1.00	0.00
ATOM	654	C6 ADE	71	-11.654	-26.806	5.743	1.00	0.00
ATOM	655	N6 ADE	71	-10.988	-27.049	6.873	1.00	0.00
ATOM	656	N1 ADE	71	-12.844	-26.183	5.788	1.00	0.00
ATOM	657	C2 ADE	71	-13.472	-25.928	4.639	1.00	0.00
ATOM	658	N3 ADE	71	-13.076	-26.212	3.398	1.00	0.00
ATOM	659	C4 ADE	71	-11.877	-26.854	3.389	1.00	0.00
ATOM	660	C3' ADE	71	-10.419	-26.453	-1.228	1.00	0.00
ATOM	661	C2' ADE	71	-10.084	-26.530	0.251	1.00	0.00
ATOM	662	O3' ADE	71	-11.112	-25.269	-1.549	1.00	0.00
ATOM	663	P GUA	72	-10.357	-23.841	-1.636	1.00	0.00
ATOM	664	OP1 GUA	72	-10.403	-23.353	-3.031	1.00	0.00
ATOM	665	OP2 GUA	72	-9.059	-23.917	-0.917	1.00	0.00
ATOM	666	O5' GUA	72	-11.344	-22.952	-0.746	1.00	0.00
ATOM	667	C5' GUA	72	-12.711	-22.815	-1.080	1.00	0.00
ATOM	668	C4' GUA	72	-13.453	-22.191	0.100	1.00	0.00
ATOM	669	O4' GUA	72	-13.161	-22.937	1.276	1.00	0.00
ATOM	670	C1' GUA	72	-12.649	-22.089	2.283	1.00	0.00
ATOM	671	N9 GUA	72	-11.653	-22.801	3.119	1.00	0.00
ATOM	672	C8 GUA	72	-10.447	-23.335	2.740	1.00	0.00
ATOM	673	N7 GUA	72	-9.722	-23.791	3.723	1.00	0.00
ATOM	674	C5 GUA	72	-10.525	-23.583	4.842	1.00	0.00
ATOM	675	C6 GUA	72	-10.283	-23.874	6.219	1.00	0.00
ATOM	676	O6 GUA	72	-9.263	-24.339	6.726	1.00	0.00
ATOM	677	N1 GUA	72	-11.371	-23.568	7.031	1.00	0.00
ATOM	678	C2 GUA	72	-12.557	-23.031	6.571	1.00	0.00
ATOM	679	N2 GUA	72	-13.504	-22.751	7.465	1.00	0.00
ATOM	680	N3 GUA	72	-12.771	-22.717	5.286	1.00	0.00
ATOM	681	C4 GUA	72	-11.725	-23.020	4.474	1.00	0.00
ATOM	682	C3' GUA	72	-13.013	-20.747	0.373	1.00	0.00
ATOM	683	C2' GUA	72	-11.999	-20.951	1.495	1.00	0.00
ATOM	684	O3' GUA	72	-14.159	-20.013	0.760	1.00	0.00
ATOM	685	P GUA	73	-14.106	-18.458	1.184	1.00	0.00
ATOM	686	OP1 GUA	73	-15.271	-17.774	0.584	1.00	0.00
ATOM	687	OP2 GUA	73	-12.741	-17.936	0.948	1.00	0.00
ATOM	688	O5' GUA	73	-14.345	-18.583	2.772	1.00	0.00

53

54

ATOM	689	C5'	GUA	73	-15.558	-19.111	3.280	1.00	0.00
ATOM	690	C4'	GUA	73	-15.586	-19.068	4.810	1.00	0.00
ATOM	691	O4'	GUA	73	-14.520	-19.842	5.337	1.00	0.00
ATOM	692	C1'	GUA	73	-13.825	-19.108	6.323	1.00	0.00
ATOM	693	N9	GUA	73	-12.414	-19.556	6.349	1.00	0.00
ATOM	694	C8	GUA	73	-11.559	-19.694	5.287	1.00	0.00
ATOM	695	N7	GUA	73	-10.401	-20.210	5.588	1.00	0.00
ATOM	696	C5	GUA	73	-10.483	-20.424	6.956	1.00	0.00
ATOM	697	C6	GUA	73	-9.523	-20.984	7.848	1.00	0.00
ATOM	698	O6	GUA	73	-8.405	-21.413	7.565	1.00	0.00
ATOM	699	N1	GUA	73	-9.973	-21.002	9.163	1.00	0.00
ATOM	700	C2	GUA	73	-11.214	-20.548	9.571	1.00	0.00
ATOM	701	N2	GUA	73	-11.496	-20.579	10.874	1.00	0.00
ATOM	702	N3	GUA	73	-12.128	-20.053	8.726	1.00	0.00
ATOM	703	C4	GUA	73	-11.705	-20.012	7.436	1.00	0.00
ATOM	704	C3'	GUA	73	-15.410	-17.644	5.355	1.00	0.00
ATOM	705	C2'	GUA	73	-13.955	-17.673	5.819	1.00	0.00
ATOM	706	O3'	GUA	73	-16.335	-17.438	6.411	1.00	0.00
ATOM	707	P	GUA	74	-16.563	-15.991	7.092	1.00	0.00
ATOM	708	OP1	GUA	74	-16.269	-14.941	6.092	1.00	0.00
ATOM	709	OP2	GUA	74	-17.872	-16.004	7.782	1.00	0.00
ATOM	710	O5'	GUA	74	-15.405	-15.961	8.207	1.00	0.00
ATOM	711	C5'	GUA	74	-15.498	-16.750	9.376	1.00	0.00
ATOM	712	C4'	GUA	74	-14.173	-16.724	10.140	1.00	0.00
ATOM	713	O4'	GUA	74	-13.130	-17.271	9.360	1.00	0.00
ATOM	714	C1'	GUA	74	-11.913	-16.764	9.857	1.00	0.00
ATOM	715	N9	GUA	74	-10.823	-17.002	8.883	1.00	0.00
ATOM	716	C8	GUA	74	-10.824	-16.755	7.534	1.00	0.00
ATOM	717	N7	GUA	74	-9.749	-17.148	6.911	1.00	0.00
ATOM	718	C5	GUA	74	-8.952	-17.663	7.926	1.00	0.00
ATOM	719	C6	GUA	74	-7.649	-18.246	7.864	1.00	0.00
ATOM	720	O6	GUA	74	-6.976	-18.549	6.880	1.00	0.00
ATOM	721	N1	GUA	74	-7.139	-18.501	9.124	1.00	0.00
ATOM	722	C2	GUA	74	-7.838	-18.354	10.296	1.00	0.00
ATOM	723	N2	GUA	74	-7.103	-18.576	11.377	1.00	0.00
ATOM	724	N3	GUA	74	-9.095	-17.899	10.366	1.00	0.00
ATOM	725	C4	GUA	74	-9.589	-17.552	9.144	1.00	0.00
ATOM	726	C3'	GUA	74	-13.698	-15.313	10.522	1.00	0.00
ATOM	727	C2'	GUA	74	-12.265	-15.286	9.974	1.00	0.00
ATOM	728	O3'	GUA	74	-13.769	-15.189	11.931	1.00	0.00
ATOM	729	P	THY	75	-13.406	-13.827	12.721	1.00	0.00
ATOM	730	OP1	THY	75	-14.522	-13.500	13.635	1.00	0.00
ATOM	731	OP2	THY	75	-12.916	-12.816	11.757	1.00	0.00
ATOM	732	O5'	THY	75	-12.155	-14.318	13.603	1.00	0.00
ATOM	733	C5'	THY	75	-12.306	-15.346	14.564	1.00	0.00
ATOM	734	C4'	THY	75	-10.942	-15.749	15.125	1.00	0.00
ATOM	735	O4'	THY	75	-10.083	-16.091	14.049	1.00	0.00
ATOM	736	C1'	THY	75	-8.832	-15.459	14.209	1.00	0.00
ATOM	737	N1	THY	75	-8.203	-15.246	12.875	1.00	0.00
ATOM	738	C6	THY	75	-8.878	-14.563	11.887	1.00	0.00

55					56				
ATOM	739	C5	THY	75	-8.358	-14.428	10.640	1.00	0.00
ATOM	740	C7	THY	75	-9.160	-13.626	9.633	1.00	0.00
ATOM	741	C4	THY	75	-7.090	-15.028	10.284	1.00	0.00
ATOM	742	O4	THY	75	-6.602	-15.057	9.159	1.00	0.00
ATOM	743	N3	THY	75	-6.438	-15.629	11.344	1.00	0.00
ATOM	744	C2	THY	75	-6.942	-15.789	12.627	1.00	0.00
ATOM	745	O2	THY	75	-6.277	-16.382	13.473	1.00	0.00
ATOM	746	C3'	THY	75	-10.252	-14.618	15.904	1.00	0.00
ATOM	747	C2'	THY	75	-9.200	-14.147	14.901	1.00	0.00
ATOM	748	O3'	THY	75	-9.694	-15.157	17.090	1.00	0.00
ATOM	749	P	THY	76	-8.901	-14.258	18.173	1.00	0.00
ATOM	750	OP1	THY	76	-9.275	-14.724	19.526	1.00	0.00
ATOM	751	OP2	THY	76	-9.046	-12.830	17.816	1.00	0.00
ATOM	752	O5'	THY	76	-7.378	-14.693	17.894	1.00	0.00
ATOM	753	C5'	THY	76	-6.949	-16.017	18.152	1.00	0.00
ATOM	754	C4'	THY	76	-5.504	-16.212	17.690	1.00	0.00
ATOM	755	O4'	THY	76	-5.410	-15.864	16.322	1.00	0.00
ATOM	756	C1'	THY	76	-4.249	-15.098	16.098	1.00	0.00
ATOM	757	N1	THY	76	-4.444	-14.280	14.866	1.00	0.00
ATOM	758	C6	THY	76	-5.472	-13.365	14.789	1.00	0.00
ATOM	759	C5	THY	76	-5.770	-12.731	13.625	1.00	0.00
ATOM	760	C7	THY	76	-6.914	-11.733	13.648	1.00	0.00
ATOM	761	C4	THY	76	-5.040	-13.005	12.406	1.00	0.00
ATOM	762	O4	THY	76	-5.271	-12.521	11.301	1.00	0.00
ATOM	763	N3	THY	76	-4.022	-13.928	12.564	1.00	0.00
ATOM	764	C2	THY	76	-3.676	-14.577	13.739	1.00	0.00
ATOM	765	O2	THY	76	-2.727	-15.363	13.751	1.00	0.00
ATOM	766	C3'	THY	76	-4.495	-15.327	18.441	1.00	0.00
ATOM	767	C2'	THY	76	-4.128	-14.281	17.385	1.00	0.00
ATOM	768	O3'	THY	76	-3.398	-16.135	18.834	1.00	0.00
ATOM	769	P	ADE	77	-2.210	-15.589	19.781	1.00	0.00
ATOM	770	OP1	ADE	77	-1.703	-16.737	20.568	1.00	0.00
ATOM	771	OP2	ADE	77	-2.662	-14.361	20.470	1.00	0.00
ATOM	772	O5'	ADE	77	-1.088	-15.195	18.702	1.00	0.00
ATOM	773	C5'	ADE	77	-0.336	-16.202	18.059	1.00	0.00
ATOM	774	C4'	ADE	77	0.527	-15.615	16.946	1.00	0.00
ATOM	775	O4'	ADE	77	-0.267	-14.973	15.972	1.00	0.00
ATOM	776	C1'	ADE	77	0.528	-13.993	15.345	1.00	0.00
ATOM	777	N9	ADE	77	-0.350	-13.072	14.591	1.00	0.00
ATOM	778	C8	ADE	77	-1.478	-12.429	15.037	1.00	0.00
ATOM	779	N7	ADE	77	-2.141	-11.801	14.107	1.00	0.00
ATOM	780	C5	ADE	77	-1.382	-12.022	12.964	1.00	0.00
ATOM	781	C6	ADE	77	-1.537	-11.619	11.625	1.00	0.00
ATOM	782	N6	ADE	77	-2.584	-10.898	11.224	1.00	0.00
ATOM	783	N1	ADE	77	-0.589	-11.958	10.729	1.00	0.00
ATOM	784	C2	ADE	77	0.441	-12.695	11.143	1.00	0.00
ATOM	785	N3	ADE	77	0.672	-13.187	12.359	1.00	0.00
ATOM	786	C4	ADE	77	-0.278	-12.784	13.247	1.00	0.00
ATOM	787	C3'	ADE	77	1.555	-14.569	17.407	1.00	0.00
ATOM	788	C2'	ADE	77	1.195	-13.347	16.552	1.00	0.00

(30)

特開2003-135087

57

58

ATOM	789	O3'	ADE	77	2.831	-15.130	17.145	1.00	0.00
ATOM	790	P	GUA	78	4.209	-14.408	17.546	1.00	0.00
ATOM	791	OP1	GUA	78	5.289	-15.416	17.524	1.00	0.00
ATOM	792	OP2	GUA	78	4.009	-13.571	18.747	1.00	0.00
ATOM	793	O5'	GUA	78	4.446	-13.453	16.289	1.00	0.00
ATOM	794	C5'	GUA	78	4.762	-13.990	15.022	1.00	0.00
ATOM	795	C4'	GUA	78	4.849	-12.867	13.998	1.00	0.00
ATOM	796	O4'	GUA	78	3.577	-12.318	13.755	1.00	0.00
ATOM	797	C1'	GUA	78	3.788	-11.041	13.208	1.00	0.00
ATOM	798	N9	GUA	78	2.511	-10.302	13.222	1.00	0.00
ATOM	799	C8	GUA	78	1.628	-10.131	14.257	1.00	0.00
ATOM	800	N7	GUA	78	0.515	-9.542	13.913	1.00	0.00
ATOM	801	C5	GUA	78	0.674	-9.293	12.550	1.00	0.00
ATOM	802	C6	GUA	78	-0.204	-8.679	11.604	1.00	0.00
ATOM	803	O6	GUA	78	-1.321	-8.201	11.790	1.00	0.00
ATOM	804	N1	GUA	78	0.334	-8.651	10.321	1.00	0.00
ATOM	805	C2	GUA	78	1.572	-9.153	9.983	1.00	0.00
ATOM	806	N2	GUA	78	1.962	-9.052	8.714	1.00	0.00
ATOM	807	N3	GUA	78	2.400	-9.722	10.865	1.00	0.00
ATOM	808	C4	GUA	78	1.893	-9.760	12.125	1.00	0.00
ATOM	809	C3'	GUA	78	5.707	-11.686	14.471	1.00	0.00
ATOM	810	C2'	GUA	78	4.828	-10.468	14.164	1.00	0.00
ATOM	811	O3'	GUA	78	6.942	-11.758	13.782	1.00	0.00
ATOM	812	P	GUA	79	8.205	-10.840	14.170	1.00	0.00
ATOM	813	OP1	GUA	79	9.412	-11.515	13.651	1.00	0.00
ATOM	814	OP2	GUA	79	8.108	-10.553	15.621	1.00	0.00
ATOM	815	O5'	GUA	79	7.924	-9.513	13.306	1.00	0.00
ATOM	816	C5'	GUA	79	8.051	-9.547	11.894	1.00	0.00
ATOM	817	C4'	GUA	79	7.350	-8.361	11.227	1.00	0.00
ATOM	818	O4'	GUA	79	5.969	-8.340	11.530	1.00	0.00
ATOM	819	C1'	GUA	79	5.511	-7.032	11.279	1.00	0.00
ATOM	820	N9	GUA	79	4.184	-6.811	11.900	1.00	0.00
ATOM	821	C8	GUA	79	3.804	-7.065	13.192	1.00	0.00
ATOM	822	N7	GUA	79	2.574	-6.737	13.466	1.00	0.00
ATOM	823	C5	GUA	79	2.090	-6.236	12.264	1.00	0.00
ATOM	824	C6	GUA	79	0.800	-5.722	11.938	1.00	0.00
ATOM	825	O6	GUA	79	-0.167	-5.575	12.680	1.00	0.00
ATOM	826	N1	GUA	79	0.688	-5.374	10.597	1.00	0.00
ATOM	827	C2	GUA	79	1.711	-5.474	9.679	1.00	0.00
ATOM	828	N2	GUA	79	1.459	-5.064	8.434	1.00	0.00
ATOM	829	N3	GUA	79	2.937	-5.925	9.987	1.00	0.00
ATOM	830	C4	GUA	79	3.061	-6.297	11.290	1.00	0.00
ATOM	831	C3'	GUA	79	7.888	-6.984	11.644	1.00	0.00
ATOM	832	C2'	GUA	79	6.598	-6.215	11.970	1.00	0.00
ATOM	833	O3'	GUA	79	8.630	-6.451	10.558	1.00	0.00
ATOM	834	P	GUA	80	9.302	-4.982	10.585	1.00	0.00
ATOM	835	OP1	GUA	80	9.476	-4.559	11.992	1.00	0.00
ATOM	836	OP2	GUA	80	10.459	-4.983	9.664	1.00	0.00
ATOM	837	O5'	GUA	80	8.138	-4.086	9.925	1.00	0.00
ATOM	838	C5'	GUA	80	7.729	-4.302	8.588	1.00	0.00

59

60

ATOM	839	C4'	GUA	80	6.508	-3.440	8.262	1.00	0.00
ATOM	840	O4'	GUA	80	5.448	-3.755	9.149	1.00	0.00
ATOM	841	C1'	GUA	80	4.741	-2.572	9.437	1.00	0.00
ATOM	842	N9	GUA	80	3.923	-2.715	10.662	1.00	0.00
ATOM	843	C8	GUA	80	4.319	-3.098	11.918	1.00	0.00
ATOM	844	N7	GUA	80	3.358	-3.120	12.797	1.00	0.00
ATOM	845	C5	GUA	80	2.237	-2.722	12.077	1.00	0.00
ATOM	846	C6	GUA	80	0.884	-2.557	12.498	1.00	0.00
ATOM	847	O6	GUA	80	0.408	-2.731	13.617	1.00	0.00
ATOM	848	N1	GUA	80	0.054	-2.158	11.457	1.00	0.00
ATOM	849	C2	GUA	80	0.470	-1.929	10.163	1.00	0.00
ATOM	850	N2	GUA	80	-0.451	-1.529	9.282	1.00	0.00
ATOM	851	N3	GUA	80	1.742	-2.072	9.765	1.00	0.00
ATOM	852	C4	GUA	80	2.573	-2.474	10.767	1.00	0.00
ATOM	853	C3'	GUA	80	6.769	-1.935	8.435	1.00	0.00
ATOM	854	C2'	GUA	80	5.880	-1.573	9.621	1.00	0.00
ATOM	855	O3'	GUA	80	6.354	-1.220	7.288	1.00	0.00
ATOM	856	O5'	CYT	81	-8.958	0.940	12.709	1.00	0.00
ATOM	857	C5'	CYT	81	-8.452	1.810	11.720	1.00	0.00
ATOM	858	C4'	CYT	81	-7.283	1.153	10.980	1.00	0.00
ATOM	859	O4'	CYT	81	-6.289	0.717	11.883	1.00	0.00
ATOM	860	C1'	CYT	81	-5.471	-0.186	11.173	1.00	0.00
ATOM	861	N1	CYT	81	-4.635	-1.004	12.085	1.00	0.00
ATOM	862	C6	CYT	81	-5.183	-1.553	13.218	1.00	0.00
ATOM	863	C5	CYT	81	-4.469	-2.365	14.029	1.00	0.00
ATOM	864	C4	CYT	81	-3.102	-2.611	13.663	1.00	0.00
ATOM	865	N4	CYT	81	-2.322	-3.386	14.419	1.00	0.00
ATOM	866	N3	CYT	81	-2.584	-2.089	12.545	1.00	0.00
ATOM	867	C2	CYT	81	-3.322	-1.298	11.722	1.00	0.00
ATOM	868	O2	CYT	81	-2.827	-0.873	10.680	1.00	0.00
ATOM	869	C3'	CYT	81	-7.673	-0.115	10.206	1.00	0.00
ATOM	870	C2'	CYT	81	-6.500	-1.060	10.468	1.00	0.00
ATOM	871	O3'	CYT	81	-7.849	0.207	8.835	1.00	0.00
ATOM	872	P	CYT	82	-8.289	-0.893	7.735	1.00	0.00
ATOM	873	OP1	CYT	82	-9.038	-0.195	6.666	1.00	0.00
ATOM	874	OP2	CYT	82	-8.909	-2.033	8.444	1.00	0.00
ATOM	875	O5'	CYT	82	-6.880	-1.393	7.126	1.00	0.00
ATOM	876	C5'	CYT	82	-6.101	-0.561	6.281	1.00	0.00
ATOM	877	C4'	CYT	82	-4.844	-1.299	5.802	1.00	0.00
ATOM	878	O4'	CYT	82	-4.049	-1.666	6.912	1.00	0.00
ATOM	879	C1'	CYT	82	-3.493	-2.950	6.719	1.00	0.00
ATOM	880	N1	CYT	82	-3.317	-3.567	8.057	1.00	0.00
ATOM	881	C6	CYT	82	-4.380	-3.583	8.917	1.00	0.00
ATOM	882	C5	CYT	82	-4.293	-4.102	10.156	1.00	0.00
ATOM	883	C4	CYT	82	-3.019	-4.637	10.542	1.00	0.00
ATOM	884	N4	CYT	82	-2.880	-5.223	11.732	1.00	0.00
ATOM	885	N3	CYT	82	-1.970	-4.612	9.705	1.00	0.00
ATOM	886	C2	CYT	82	-2.085	-4.093	8.447	1.00	0.00
ATOM	887	O2	CYT	82	-1.122	-4.108	7.684	1.00	0.00
ATOM	888	C3'	CYT	82	-5.164	-2.596	5.041	1.00	0.00

(32)

特開2003-135087

61				62				
ATOM	889	C2' CYT	82	-4.577	-3.686	5.931	1.00	0.00
ATOM	890	O3' CYT	82	-4.574	-2.536	3.750	1.00	0.00
ATOM	891	P CYT	83	-4.853	-3.647	2.608	1.00	0.00
ATOM	892	OP1 CYT	83	-4.777	-2.982	1.288	1.00	0.00
ATOM	893	OP2 CYT	83	-6.064	-4.412	2.980	1.00	0.00
ATOM	894	O5' CYT	83	-3.585	-4.627	2.749	1.00	0.00
ATOM	895	C5' CYT	83	-2.314	-4.276	2.228	1.00	0.00
ATOM	896	C4' CYT	83	-1.266	-5.264	2.749	1.00	0.00
ATOM	897	O4' CYT	83	-1.370	-5.305	4.156	1.00	0.00
ATOM	898	C1' CYT	83	-0.812	-6.508	4.624	1.00	0.00
ATOM	899	N1 CYT	83	-1.450	-6.881	5.911	1.00	0.00
ATOM	900	C6 CYT	83	-2.808	-6.777	6.051	1.00	0.00
ATOM	901	C5 CYT	83	-3.420	-7.009	7.232	1.00	0.00
ATOM	902	C4 CYT	83	-2.583	-7.410	8.327	1.00	0.00
ATOM	903	N4 CYT	83	-3.121	-7.671	9.519	1.00	0.00
ATOM	904	N3 CYT	83	-1.259	-7.566	8.171	1.00	0.00
ATOM	905	C2 CYT	83	-0.661	-7.310	6.972	1.00	0.00
ATOM	906	O2 CYT	83	0.548	-7.475	6.834	1.00	0.00
ATOM	907	C3' CYT	83	-1.498	-6.711	2.289	1.00	0.00
ATOM	908	C2' CYT	83	-1.162	-7.525	3.542	1.00	0.00
ATOM	909	O3' CYT	83	-0.668	-7.041	1.187	1.00	0.00
ATOM	910	P THY	84	-0.752	-8.474	0.429	1.00	0.00
ATOM	911	OP1 THY	84	-0.019	-8.364	-0.850	1.00	0.00
ATOM	912	OP2 THY	84	-2.161	-8.926	0.428	1.00	0.00
ATOM	913	O5' THY	84	0.082	-9.470	1.386	1.00	0.00
ATOM	914	C5' THY	84	1.478	-9.312	1.569	1.00	0.00
ATOM	915	C4' THY	84	1.983	-10.261	2.660	1.00	0.00
ATOM	916	O4' THY	84	1.304	-10.016	3.881	1.00	0.00
ATOM	917	C1' THY	84	1.135	-11.230	4.576	1.00	0.00
ATOM	918	N1 THY	84	0.048	-11.091	5.591	1.00	0.00
ATOM	919	C6 THY	84	-1.214	-10.701	5.204	1.00	0.00
ATOM	920	C5 THY	84	-2.213	-10.551	6.107	1.00	0.00
ATOM	921	C7 THY	84	-3.585	-10.199	5.560	1.00	0.00
ATOM	922	C4 THY	84	-1.992	-10.760	7.522	1.00	0.00
ATOM	923	O4 THY	84	-2.835	-10.608	8.398	1.00	0.00
ATOM	924	N3 THY	84	-0.709	-11.170	7.844	1.00	0.00
ATOM	925	C2 THY	84	0.332	-11.349	6.939	1.00	0.00
ATOM	926	O2 THY	84	1.432	-11.718	7.338	1.00	0.00
ATOM	927	C3' THY	84	1.747	-11.742	2.326	1.00	0.00
ATOM	928	C2' THY	84	0.776	-12.177	3.428	1.00	0.00
ATOM	929	O3' THY	84	2.994	-12.419	2.346	1.00	0.00
ATOM	930	P ADE	85	3.140	-13.982	1.972	1.00	0.00
ATOM	931	OP1 ADE	85	4.548	-14.256	1.614	1.00	0.00
ATOM	932	OP2 ADE	85	2.086	-14.344	0.997	1.00	0.00
ATOM	933	O5' ADE	85	2.819	-14.701	3.367	1.00	0.00
ATOM	934	C5' ADE	85	3.663	-14.506	4.484	1.00	0.00
ATOM	935	C4' ADE	85	3.005	-15.065	5.743	1.00	0.00
ATOM	936	O4' ADE	85	1.814	-14.373	6.066	1.00	0.00
ATOM	937	C1' ADE	85	0.982	-15.288	6.742	1.00	0.00
ATOM	938	N9 ADE	85	-0.398	-14.783	6.864	1.00	0.00

63					64				
ATOM	939	C8	ADE	85	-1.215	-14.261	5.894	1.00	0.00
ATOM	940	N7	ADE	85	-2.362	-13.824	6.336	1.00	0.00
ATOM	941	C5	ADE	85	-2.307	-14.093	7.700	1.00	0.00
ATOM	942	C6	ADE	85	-3.190	-13.850	8.772	1.00	0.00
ATOM	943	N6	ADE	85	-4.354	-13.210	8.639	1.00	0.00
ATOM	944	N1	ADE	85	-2.834	-14.265	9.997	1.00	0.00
ATOM	945	C2	ADE	85	-1.666	-14.874	10.160	1.00	0.00
ATOM	946	N3	ADE	85	-0.734	-15.135	9.256	1.00	0.00
ATOM	947	C4	ADE	85	-1.123	-14.709	8.024	1.00	0.00
ATOM	948	C3'	ADE	85	2.590	-16.537	5.606	1.00	0.00
ATOM	949	C2'	ADE	85	1.076	-16.472	5.794	1.00	0.00
ATOM	950	O3'	ADE	85	3.198	-17.246	6.662	1.00	0.00
ATOM	951	P	ADE	86	3.407	-18.832	6.613	1.00	0.00
ATOM	952	OP1	ADE	86	2.506	-19.404	5.594	1.00	0.00
ATOM	953	OP2	ADE	86	4.864	-19.084	6.513	1.00	0.00
ATOM	954	O5'	ADE	86	2.889	-19.301	8.048	1.00	0.00
ATOM	955	C5'	ADE	86	3.627	-19.003	9.207	1.00	0.00
ATOM	956	C4'	ADE	86	2.821	-19.367	10.448	1.00	0.00
ATOM	957	O4'	ADE	86	1.606	-18.640	10.422	1.00	0.00
ATOM	958	C1'	ADE	86	0.502	-19.509	10.536	1.00	0.00
ATOM	959	N9	ADE	86	-0.614	-18.955	9.732	1.00	0.00
ATOM	960	C8	ADE	86	-0.708	-18.838	8.365	1.00	0.00
ATOM	961	N7	ADE	86	-1.797	-18.256	7.945	1.00	0.00
ATOM	962	C5	ADE	86	-2.476	-17.959	9.119	1.00	0.00
ATOM	963	C6	ADE	86	-3.716	-17.344	9.375	1.00	0.00
ATOM	964	N6	ADE	86	-4.509	-16.900	8.399	1.00	0.00
ATOM	965	N1	ADE	86	-4.116	-17.202	10.653	1.00	0.00
ATOM	966	C2	ADE	86	-3.315	-17.626	11.626	1.00	0.00
ATOM	967	N3	ADE	86	-2.123	-18.205	11.519	1.00	0.00
ATOM	968	C4	ADE	86	-1.755	-18.357	10.217	1.00	0.00
ATOM	969	C3'	ADE	86	2.456	-20.852	10.538	1.00	0.00
ATOM	970	C2'	ADE	86	1.022	-20.845	10.005	1.00	0.00
ATOM	971	O3'	ADE	86	2.578	-21.256	11.892	1.00	0.00
ATOM	972	P	CYT	87	2.227	-22.747	12.385	1.00	0.00
ATOM	973	OP1	CYT	87	2.248	-23.643	11.206	1.00	0.00
ATOM	974	OP2	CYT	87	3.078	-23.067	13.552	1.00	0.00
ATOM	975	O5'	CYT	87	0.717	-22.542	12.908	1.00	0.00
ATOM	976	C5'	CYT	87	0.488	-21.753	14.062	1.00	0.00
ATOM	977	C4'	CYT	87	-0.985	-21.398	14.256	1.00	0.00
ATOM	978	O4'	CYT	87	-1.556	-20.878	13.079	1.00	0.00
ATOM	979	C1'	CYT	87	-2.943	-21.145	13.087	1.00	0.00
ATOM	980	N1	CYT	87	-3.468	-21.102	11.698	1.00	0.00
ATOM	981	C6	CYT	87	-2.691	-21.537	10.657	1.00	0.00
ATOM	982	C5	CYT	87	-3.054	-21.332	9.371	1.00	0.00
ATOM	983	C4	CYT	87	-4.291	-20.648	9.139	1.00	0.00
ATOM	984	N4	CYT	87	-4.662	-20.340	7.891	1.00	0.00
ATOM	985	N3	CYT	87	-5.073	-20.271	10.164	1.00	0.00
ATOM	986	C2	CYT	87	-4.715	-20.534	11.460	1.00	0.00
ATOM	987	O2	CYT	87	-5.475	-20.265	12.393	1.00	0.00
ATOM	988	C3'	CYT	87	-1.881	-22.564	14.692	1.00	0.00

65				66			
ATOM	989	C2' CYT	87	-2.989	-22.556	13.646	1.00 0.00
ATOM	990	O3' CYT	87	-2.321	-22.232	16.002	1.00 0.00
ATOM	991	P CYT	88	-3.035	-23.272	17.001	1.00 0.00
ATOM	992	OP1 CYT	88	-2.494	-24.624	16.742	1.00 0.00
ATOM	993	OP2 CYT	88	-2.948	-22.692	18.363	1.00 0.00
ATOM	994	O5' CYT	88	-4.572	-23.229	16.528	1.00 0.00
ATOM	995	C5' CYT	88	-5.427	-22.170	16.919	1.00 0.00
ATOM	996	C4' CYT	88	-6.726	-22.198	16.108	1.00 0.00
ATOM	997	O4' CYT	88	-6.455	-22.051	14.734	1.00 0.00
ATOM	998	C1' CYT	88	-7.597	-22.489	14.037	1.00 0.00
ATOM	999	N1 CYT	88	-7.252	-22.762	12.623	1.00 0.00
ATOM	1000	C6 CYT	88	-6.101	-23.440	12.321	1.00 0.00
ATOM	1001	C5 CYT	88	-5.688	-23.615	11.049	1.00 0.00
ATOM	1002	C4 CYT	88	-6.533	-23.073	10.015	1.00 0.00
ATOM	1003	N4 CYT	88	-6.211	-23.161	8.723	1.00 0.00
ATOM	1004	N3 CYT	88	-7.676	-22.439	10.320	1.00 0.00
ATOM	1005	C2 CYT	88	-8.061	-22.263	11.612	1.00 0.00
ATOM	1006	O2 CYT	88	-9.110	-21.678	11.861	1.00 0.00
ATOM	1007	C3' CYT	88	-7.527	-23.506	16.211	1.00 0.00
ATOM	1008	C2' CYT	88	-7.937	-23.783	14.761	1.00 0.00
ATOM	1009	O3' CYT	88	-8.615	-23.292	17.094	1.00 0.00
ATOM	1010	P CYT	89	-9.769	-24.391	17.354	1.00 0.00
ATOM	1011	OP1 CYT	89	-9.244	-25.723	16.982	1.00 0.00
ATOM	1012	OP2 CYT	89	-10.323	-24.168	18.707	1.00 0.00
ATOM	1013	O5' CYT	89	-10.892	-23.974	16.274	1.00 0.00
ATOM	1014	C5' CYT	89	-11.571	-22.733	16.356	1.00 0.00
ATOM	1015	C4' CYT	89	-12.551	-22.588	15.187	1.00 0.00
ATOM	1016	O4' CYT	89	-11.853	-22.685	13.962	1.00 0.00
ATOM	1017	C1' CYT	89	-12.652	-23.325	12.989	1.00 0.00
ATOM	1018	N1 CYT	89	-11.742	-24.005	12.029	1.00 0.00
ATOM	1019	C6 CYT	89	-10.685	-24.730	12.514	1.00 0.00
ATOM	1020	C5 CYT	89	-9.724	-25.219	11.704	1.00 0.00
ATOM	1021	C4 CYT	89	-9.868	-24.960	10.299	1.00 0.00
ATOM	1022	N4 CYT	89	-8.944	-25.390	9.438	1.00 0.00
ATOM	1023	N3 CYT	89	-10.933	-24.299	9.818	1.00 0.00
ATOM	1024	C2 CYT	89	-11.899	-23.820	10.657	1.00 0.00
ATOM	1025	O2 CYT	89	-12.887	-23.256	10.196	1.00 0.00
ATOM	1026	C3' CYT	89	-13.617	-23.693	15.174	1.00 0.00
ATOM	1027	C2' CYT	89	-13.453	-24.337	13.798	1.00 0.00
ATOM	1028	O3' CYT	89	-14.892	-23.102	15.380	1.00 0.00
ATOM	1029	P THY	90	-16.253	-23.967	15.499	1.00 0.00
ATOM	1030	OP1 THY	90	-17.226	-23.190	16.298	1.00 0.00
ATOM	1031	OP2 THY	90	-15.905	-25.348	15.902	1.00 0.00
ATOM	1032	O5' THY	90	-16.776	-24.007	13.974	1.00 0.00
ATOM	1033	C5' THY	90	-17.220	-22.832	13.319	1.00 0.00
ATOM	1034	C4' THY	90	-17.490	-23.128	11.842	1.00 0.00
ATOM	1035	O4' THY	90	-16.312	-23.633	11.243	1.00 0.00
ATOM	1036	C1' THY	90	-16.658	-24.575	10.255	1.00 0.00
ATOM	1037	N1 THY	90	-15.479	-25.450	10.012	1.00 0.00
ATOM	1038	C6 THY	90	-14.899	-26.117	11.064	1.00 0.00

67					68				
ATOM	1039	C5	THY	90	-13.751	-26.816	10.909	1.00	0.00
ATOM	1040	C7	THY	90	-13.225	-27.549	12.129	1.00	0.00
ATOM	1041	C4	THY	90	-13.066	-26.865	9.637	1.00	0.00
ATOM	1042	O4	THY	90	-11.994	-27.426	9.439	1.00	0.00
ATOM	1043	N3	THY	90	-13.723	-26.196	8.611	1.00	0.00
ATOM	1044	C2	THY	90	-14.927	-25.516	8.731	1.00	0.00
ATOM	1045	O2	THY	90	-15.461	-25.022	7.741	1.00	0.00
ATOM	1046	C3'	THY	90	-18.577	-24.193	11.623	1.00	0.00
ATOM	1047	C2'	THY	90	-17.823	-25.318	10.910	1.00	0.00
ATOM	1048	O3'	THY	90	-19.623	-23.632	10.846	1.00	0.00
ATOM	1049	P	ADE	91	-21.018	-24.405	10.578	1.00	0.00
ATOM	1050	OP1	ADE	91	-22.032	-23.405	10.179	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.285	-25.308	11.719	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.671	-25.308	9.293	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.544	-24.733	8.008	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.927	-25.733	7.029	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.622	-26.101	7.418	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.297	-27.260	6.687	1.00	0.00
ATOM	1057	N9	ADE	91	-17.125	-27.928	7.280	1.00	0.00
ATOM	1058	C8	ADE	91	-16.905	-28.224	8.599	1.00	0.00
ATOM	1059	N7	ADE	91	-15.743	-28.767	8.839	1.00	0.00
ATOM	1060	C5	ADE	91	-15.162	-28.858	7.577	1.00	0.00
ATOM	1061	C6	ADE	91	-13.922	-29.343	7.118	1.00	0.00
ATOM	1062	N6	ADE	91	-12.989	-29.828	7.942	1.00	0.00
ATOM	1063	N1	ADE	91	-13.677	-29.342	5.793	1.00	0.00
ATOM	1064	C2	ADE	91	-14.604	-28.864	4.968	1.00	0.00
ATOM	1065	N3	ADE	91	-15.789	-28.348	5.273	1.00	0.00
ATOM	1066	C4	ADE	91	-16.012	-28.375	6.615	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.684	-27.065	6.916	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.554	-28.101	6.863	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.499	-27.019	5.754	1.00	0.00
ATOM	1070	P	ADE	92	-22.380	-28.271	5.238	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.713	-29.129	6.396	1.00	0.00
ATOM	1072	OP2	ADE	92	-23.460	-27.748	4.371	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.330	-29.063	4.306	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.766	-28.452	3.160	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.663	-29.336	2.573	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.628	-29.532	3.524	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.138	-30.848	3.395	1.00	0.00
ATOM	1078	N9	ADE	92	-17.420	-31.263	4.621	1.00	0.00
ATOM	1079	C8	ADE	92	-17.870	-31.239	5.917	1.00	0.00
ATOM	1080	N7	ADE	92	-16.996	-31.632	6.801	1.00	0.00
ATOM	1081	C5	ADE	92	-15.886	-31.954	6.032	1.00	0.00
ATOM	1082	C6	ADE	92	-14.610	-32.452	6.360	1.00	0.00
ATOM	1083	N6	ADE	92	-14.248	-32.693	7.621	1.00	0.00
ATOM	1084	N1	ADE	92	-13.734	-32.694	5.367	1.00	0.00
ATOM	1085	C2	ADE	92	-14.110	-32.453	4.113	1.00	0.00
ATOM	1086	N3	ADE	92	-15.274	-31.984	3.673	1.00	0.00
ATOM	1087	C4	ADE	92	-16.134	-31.745	4.699	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.160	-30.739	2.186	1.00	0.00

(36)

特開2003-135087

69

70

ATOM	1089	C2'	ADE	92	-19.443	-31.619	3.211	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.769	-31.011	0.851	1.00	0.00
ATOM	1091	P	CYT	93	-20.248	-32.336	0.063	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.256	-33.045	0.882	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.564	-31.961	-1.334	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.909	-33.225	0.054	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.825	-32.913	-0.802	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.670	-33.879	-0.528	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.311	-33.783	0.831	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.776	-35.013	1.261	1.00	0.00
ATOM	1099	N1	CYT	93	-15.947	-35.120	2.731	1.00	0.00
ATOM	1100	C6	CYT	93	-17.130	-34.738	3.313	1.00	0.00
ATOM	1101	C5	CYT	93	-17.314	-34.791	4.651	1.00	0.00
ATOM	1102	C4	CYT	93	-16.208	-35.258	5.436	1.00	0.00
ATOM	1103	N4	CYT	93	-16.268	-35.250	6.768	1.00	0.00
ATOM	1104	N3	CYT	93	-15.066	-35.655	4.860	1.00	0.00
ATOM	1105	C2	CYT	93	-14.903	-35.610	3.509	1.00	0.00
ATOM	1106	O2	CYT	93	-13.851	-35.997	3.008	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.056	-35.349	-0.745	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.640	-36.052	0.546	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.361	-35.893	-1.847	1.00	0.00

END

HEADER 000000

REMARK 0.00531 1.66924 0.02539 0.01779 3.05740 1.52763

0.00000

REMARK 2.52950 0.21246 0.35486 1.29530 0.66688

REMARK 0.01021 0.00343 0.00436 0.02022 0.00762

REMARK 119 117 1 1 0 0

0

REMARK 1378 305 460 273 340

REMARK 0.03476 0.20803 0.03288 0.04050 0.20803 0.11195

REMARK 2.07464 0.16883

REMARK 1 0 1 0 0 0

0

ATOM 1 N GLU 1 14.676 -20.811 29.441 1.00 0.00

ATOM 2 CA GLU 1 15.911 -20.100 29.069 1.00 0.00

ATOM 3 CB GLU 1 16.356 -20.456 27.639 1.00 0.00

ATOM 4 CG GLU 1 16.258 -21.956 27.330 1.00 0.00

ATOM 5 CD GLU 1 16.857 -22.807 28.443 1.00 0.00

ATOM 6 OE1 GLU 1 16.073 -23.125 29.364 1.00 0.00

ATOM 7 OE2 GLU 1 18.078 -23.060 28.383 1.00 0.00

ATOM 8 C GLU 1 15.743 -18.590 29.224 1.00 0.00

ATOM 9 O GLU 1 14.639 -18.108 29.478 1.00 0.00

ATOM 10 N LYS 2 16.844 -17.847 29.063 1.00 0.00

71					72				
ATOM	11	CA	LYS	2	16.859	-16.394	29.156	1.00	0.00
ATOM	12	CB	LYS	2	18.284	-15.869	28.923	1.00	0.00
ATOM	13	CG	LYS	2	19.232	-16.206	30.077	1.00	0.00
ATOM	14	CD	LYS	2	20.702	-15.882	29.763	1.00	0.00
ATOM	15	CE	LYS	2	20.965	-14.410	29.406	1.00	0.00
ATOM	16	NZ	LYS	2	20.808	-14.130	27.963	1.00	0.00
ATOM	17	C	LYS	2	15.925	-15.811	28.097	1.00	0.00
ATOM	18	O	LYS	2	15.028	-15.030	28.406	1.00	0.00
ATOM	19	N	HIS	3	16.163	-16.204	26.844	1.00	0.00
ATOM	20	CA	HIS	3	15.410	-15.752	25.687	1.00	0.00
ATOM	21	CB	HIS	3	16.271	-15.950	24.431	1.00	0.00
ATOM	22	CG	HIS	3	17.695	-15.477	24.620	1.00	0.00
ATOM	23	ND1	HIS	3	18.780	-16.103	24.026	1.00	0.00
ATOM	24	CE1	HIS	3	19.884	-15.440	24.411	1.00	0.00
ATOM	25	NE2	HIS	3	19.618	-14.413	25.223	1.00	0.00
ATOM	26	CD2	HIS	3	18.233	-14.441	25.348	1.00	0.00
ATOM	27	C	HIS	3	14.071	-16.484	25.605	1.00	0.00
ATOM	28	O	HIS	3	13.878	-17.504	26.268	1.00	0.00
ATOM	29	N	ARG	4	13.151	-15.946	24.796	1.00	0.00
ATOM	30	CA	ARG	4	11.813	-16.484	24.593	1.00	0.00
ATOM	31	CB	ARG	4	10.772	-15.651	25.368	1.00	0.00
ATOM	32	CG	ARG	4	11.138	-15.404	26.843	1.00	0.00
ATOM	33	CD	ARG	4	11.144	-16.681	27.700	1.00	0.00
ATOM	34	NE	ARG	4	12.215	-16.658	28.709	1.00	0.00
ATOM	35	CZ	ARG	4	12.227	-15.914	29.827	1.00	0.00
ATOM	36	NH1	ARG	4	13.252	-16.030	30.678	1.00	0.00
ATOM	37	NH2	ARG	4	11.224	-15.067	30.095	1.00	0.00
ATOM	38	C	ARG	4	11.519	-16.527	23.092	1.00	0.00
ATOM	39	O	ARG	4	11.255	-17.599	22.555	1.00	0.00
ATOM	40	N	ALA	5	11.581	-15.364	22.427	1.00	0.00
ATOM	41	CA	ALA	5	11.355	-15.196	20.996	1.00	0.00
ATOM	42	CB	ALA	5	12.495	-15.830	20.190	1.00	0.00
ATOM	43	C	ALA	5	9.979	-15.714	20.567	1.00	0.00
ATOM	44	O	ALA	5	9.852	-16.841	20.093	1.00	0.00
ATOM	45	N	ARG	6	8.949	-14.876	20.728	1.00	0.00
ATOM	46	CA	ARG	6	7.582	-15.217	20.358	1.00	0.00
ATOM	47	CB	ARG	6	6.601	-14.241	21.039	1.00	0.00
ATOM	48	CG	ARG	6	5.325	-14.953	21.512	1.00	0.00
ATOM	49	CD	ARG	6	4.373	-13.941	22.159	1.00	0.00
ATOM	50	NE	ARG	6	3.178	-14.590	22.725	1.00	0.00
ATOM	51	CZ	ARG	6	1.983	-14.729	22.119	1.00	0.00
ATOM	52	NH1	ARG	6	1.804	-14.369	20.844	1.00	0.00
ATOM	53	NH2	ARG	6	0.949	-15.229	22.807	1.00	0.00
ATOM	54	C	ARG	6	7.480	-15.210	18.829	1.00	0.00
ATOM	55	O	ARG	6	7.227	-14.166	18.232	1.00	0.00
ATOM	56	N	LYS	7	7.702	-16.374	18.204	1.00	0.00
ATOM	57	CA	LYS	7	7.648	-16.568	16.762	1.00	0.00
ATOM	58	CB	LYS	7	9.024	-16.342	16.111	1.00	0.00
ATOM	59	CG	LYS	7	9.399	-14.858	16.187	1.00	0.00
ATOM	60	CD	LYS	7	10.370	-14.417	15.086	1.00	0.00

73

74

ATOM	61	CE	LYS	7	10.446	-12.886	15.118	1.00	0.00
ATOM	62	NZ	LYS	7	11.017	-12.318	13.885	1.00	0.00
ATOM	63	C	LYS	7	7.089	-17.954	16.448	1.00	0.00
ATOM	64	O	LYS	7	7.403	-18.928	17.130	1.00	0.00
ATOM	65	N	ARG	8	6.249	-18.019	15.409	1.00	0.00
ATOM	66	CA	ARG	8	5.589	-19.226	14.933	1.00	0.00
ATOM	67	CB	ARG	8	4.271	-18.825	14.252	1.00	0.00
ATOM	68	CG	ARG	8	3.425	-17.899	15.138	1.00	0.00
ATOM	69	CD	ARG	8	2.008	-17.691	14.586	1.00	0.00
ATOM	70	NE	ARG	8	1.965	-17.058	13.258	1.00	0.00
ATOM	71	CZ	ARG	8	2.178	-15.758	12.995	1.00	0.00
ATOM	72	NH1	ARG	8	2.575	-14.930	13.966	1.00	0.00
ATOM	73	NH2	ARG	8	1.985	-15.274	11.763	1.00	0.00
ATOM	74	C	ARG	8	6.512	-19.983	13.967	1.00	0.00
ATOM	75	O	ARG	8	7.638	-19.548	13.720	1.00	0.00
ATOM	76	N	GLN	9	6.048	-21.108	13.406	1.00	0.00
ATOM	77	CA	GLN	9	6.840	-21.894	12.470	1.00	0.00
ATOM	78	CB	GLN	9	6.336	-23.345	12.394	1.00	0.00
ATOM	79	CG	GLN	9	6.375	-24.078	13.740	1.00	0.00
ATOM	80	CD	GLN	9	7.800	-24.259	14.252	1.00	0.00
ATOM	81	OE1	GLN	9	8.190	-23.659	15.250	1.00	0.00
ATOM	82	NE2	GLN	9	8.586	-25.088	13.567	1.00	0.00
ATOM	83	C	GLN	9	6.819	-21.220	11.097	1.00	0.00
ATOM	84	O	GLN	9	6.099	-21.643	10.194	1.00	0.00
ATOM	85	N	ALA	10	7.632	-20.167	10.947	1.00	0.00
ATOM	86	CA	ALA	10	7.766	-19.424	9.704	1.00	0.00
ATOM	87	CB	ALA	10	8.727	-18.249	9.906	1.00	0.00
ATOM	88	C	ALA	10	8.275	-20.369	8.618	1.00	0.00
ATOM	89	O	ALA	10	9.300	-21.024	8.809	1.00	0.00
ATOM	90	N	TRP	11	7.562	-20.454	7.490	1.00	0.00
ATOM	91	CA	TRP	11	7.967	-21.327	6.401	1.00	0.00
ATOM	92	CB	TRP	11	6.814	-21.493	5.409	1.00	0.00
ATOM	93	CG	TRP	11	5.643	-22.333	5.839	1.00	0.00
ATOM	94	CD1	TRP	11	4.726	-22.024	6.785	1.00	0.00
ATOM	95	NE1	TRP	11	3.787	-23.030	6.888	1.00	0.00
ATOM	96	CE2	TRP	11	4.058	-24.056	6.006	1.00	0.00
ATOM	97	CZ2	TRP	11	3.421	-25.274	5.719	1.00	0.00
ATOM	98	CH2	TRP	11	3.969	-26.119	4.745	1.00	0.00
ATOM	99	CZ3	TRP	11	5.138	-25.742	4.069	1.00	0.00
ATOM	100	CE3	TRP	11	5.762	-24.515	4.353	1.00	0.00
ATOM	101	CD2	TRP	11	5.243	-23.639	5.328	1.00	0.00
ATOM	102	C	TRP	11	9.235	-20.777	5.731	1.00	0.00
ATOM	103	O	TRP	11	9.545	-19.589	5.838	1.00	0.00
ATOM	104	N	LEU	12	9.973	-21.658	5.051	1.00	0.00
ATOM	105	CA	LEU	12	11.216	-21.364	4.350	1.00	0.00
ATOM	106	CB	LEU	12	12.425	-21.609	5.269	1.00	0.00
ATOM	107	CG	LEU	12	12.593	-23.059	5.775	1.00	0.00
ATOM	108	CD1	LEU	12	14.057	-23.282	6.168	1.00	0.00
ATOM	109	CD2	LEU	12	11.715	-23.378	6.995	1.00	0.00
ATOM	110	C	LEU	12	11.276	-22.224	3.089	1.00	0.00

75					76				
ATOM	111	O	LEU	12	10.468	-23.142	2.956	1.00	0.00
ATOM	112	N	TRP	13	12.211	-21.954	2.162	1.00	0.00
ATOM	113	CA	TRP	13	12.283	-22.736	0.931	1.00	0.00
ATOM	114	CB	TRP	13	13.300	-22.246	-0.104	1.00	0.00
ATOM	115	CG	TRP	13	14.747	-22.488	0.186	1.00	0.00
ATOM	116	CD1	TRP	13	15.577	-21.500	0.542	1.00	0.00
ATOM	117	NE1	TRP	13	16.849	-21.981	0.757	1.00	0.00
ATOM	118	CE2	TRP	13	16.898	-23.343	0.535	1.00	0.00
ATOM	119	CZ2	TRP	13	17.936	-24.284	0.615	1.00	0.00
ATOM	120	CH2	TRP	13	17.667	-25.629	0.321	1.00	0.00
ATOM	121	CZ3	TRP	13	16.369	-26.015	-0.053	1.00	0.00
ATOM	122	CE3	TRP	13	15.337	-25.064	-0.135	1.00	0.00
ATOM	123	CD2	TRP	13	15.567	-23.702	0.161	1.00	0.00
ATOM	124	C	TRP	13	12.433	-24.228	-1.157	1.00	0.00
ATOM	125	O	TRP	13	12.045	-24.972	0.279	1.00	0.00
ATOM	126	N	GLU	14	12.968	-24.728	2.271	1.00	0.00
ATOM	127	CA	GLU	14	13.034	-26.177	2.389	1.00	0.00
ATOM	128	CB	GLU	14	13.801	-26.592	3.648	1.00	0.00
ATOM	129	CG	GLU	14	15.252	-26.099	3.581	1.00	0.00
ATOM	130	CD	GLU	14	16.062	-26.585	4.776	1.00	0.00
ATOM	131	OE1	GLU	14	16.407	-27.786	4.774	1.00	0.00
ATOM	132	OE2	GLU	14	16.319	-25.747	5.666	1.00	0.00
ATOM	133	C	GLU	14	11.608	-26.734	2.328	1.00	0.00
ATOM	134	O	GLU	14	11.293	-27.561	1.472	1.00	0.00
ATOM	135	N	GLU	15	10.745	-26.238	3.213	1.00	0.00
ATOM	136	CA	GLU	15	9.354	-26.636	3.270	1.00	0.00
ATOM	137	CB	GLU	15	8.718	-26.081	4.547	1.00	0.00
ATOM	138	CG	GLU	15	9.454	-26.508	5.821	1.00	0.00
ATOM	139	CD	GLU	15	8.664	-26.094	7.054	1.00	0.00
ATOM	140	OE1	GLU	15	8.228	-24.925	7.106	1.00	0.00
ATOM	141	OE2	GLU	15	8.470	-26.961	7.936	1.00	0.00
ATOM	142	C	GLU	15	8.583	-26.194	2.018	1.00	0.00
ATOM	143	O	GLU	15	7.884	-27.006	1.424	1.00	0.00
ATOM	144	N	ASP	16	8.692	-24.922	1.613	1.00	0.00
ATOM	145	CA	ASP	16	7.986	-24.363	0.459	1.00	0.00
ATOM	146	CB	ASP	16	8.125	-22.837	0.414	1.00	0.00
ATOM	147	CG	ASP	16	7.434	-22.142	1.573	1.00	0.00
ATOM	148	OD1	ASP	16	6.275	-22.506	1.858	1.00	0.00
ATOM	149	OD2	ASP	16	8.045	-21.202	2.127	1.00	0.00
ATOM	150	C	ASP	16	8.431	-24.944	-0.882	1.00	0.00
ATOM	151	O	ASP	16	7.593	-25.262	-1.724	1.00	0.00
ATOM	152	N	LYS	17	9.743	-25.077	-1.102	1.00	0.00
ATOM	153	CA	LYS	17	10.289	-25.621	-2.339	1.00	0.00
ATOM	154	CB	LYS	17	11.822	-25.441	-2.415	1.00	0.00
ATOM	155	CG	LYS	17	12.351	-25.690	-3.833	1.00	0.00
ATOM	156	CD	LYS	17	13.880	-25.553	-3.892	1.00	0.00
ATOM	157	CE	LYS	17	14.596	-26.783	-3.313	1.00	0.00
ATOM	158	NZ	LYS	17	16.058	-26.595	-3.290	1.00	0.00
ATOM	159	C	LYS	17	9.820	-27.078	-2.437	1.00	0.00
ATOM	160	O	LYS	17	9.391	-27.525	-3.502	1.00	0.00

77

78

ATOM	161	N	ASN	18	9.862	-27.814	-1.318	1.00	0.00
ATOM	162	CA	ASN	18	9.377	-29.185	-1.283	1.00	0.00
ATOM	163	CB	ASN	18	9.718	-29.816	0.064	1.00	0.00
ATOM	164	CG	ASN	18	11.165	-30.288	0.193	1.00	0.00
ATOM	165	OD1	ASN	18	12.008	-29.995	-0.652	1.00	0.00
ATOM	166	ND2	ASN	18	11.459	-31.039	1.256	1.00	0.00
ATOM	167	C	ASN	18	7.857	-29.228	-1.499	1.00	0.00
ATOM	168	O	ASN	18	7.369	-30.093	-2.220	1.00	0.00
ATOM	169	N	LEU	19	7.103	-28.312	-0.883	1.00	0.00
ATOM	170	CA	LEU	19	5.649	-28.221	-0.985	1.00	0.00
ATOM	171	CB	LEU	19	5.148	-27.058	-0.108	1.00	0.00
ATOM	172	CG	LEU	19	3.663	-26.689	-0.247	1.00	0.00
ATOM	173	CD1	LEU	19	2.737	-27.774	0.306	1.00	0.00
ATOM	174	CD2	LEU	19	3.401	-25.379	0.507	1.00	0.00
ATOM	175	C	LEU	19	5.244	-28.055	-2.447	1.00	0.00
ATOM	176	O	LEU	19	4.519	-28.892	-2.982	1.00	0.00
ATOM	177	N	ARG	20	5.714	-26.982	-3.093	1.00	0.00
ATOM	178	CA	ARG	20	5.403	-26.700	-4.487	1.00	0.00
ATOM	179	CB	ARG	20	5.938	-25.321	-4.888	1.00	0.00
ATOM	180	CG	ARG	20	7.440	-25.288	-5.149	1.00	0.00
ATOM	181	CD	ARG	20	7.932	-23.844	-5.252	1.00	0.00
ATOM	182	NE	ARG	20	9.354	-23.815	-5.612	1.00	0.00
ATOM	183	CZ	ARG	20	10.028	-22.702	-5.934	1.00	0.00
ATOM	184	NH1	ARG	20	11.232	-22.790	-6.505	1.00	0.00
ATOM	185	NH2	ARG	20	9.485	-21.492	-5.763	1.00	0.00
ATOM	186	C	ARG	20	5.864	-27.853	-5.385	1.00	0.00
ATOM	187	O	ARG	20	5.139	-28.245	-6.299	1.00	0.00
ATOM	188	N	SER	21	7.047	-28.427	-5.103	1.00	0.00
ATOM	189	CA	SER	21	7.551	-29.576	-5.844	1.00	0.00
ATOM	190	CB	SER	21	8.908	-30.034	-5.286	1.00	0.00
ATOM	191	OG	SER	21	9.322	-31.252	-5.880	1.00	0.00
ATOM	192	C	SER	21	6.521	-30.702	-5.750	1.00	0.00
ATOM	193	O	SER	21	6.164	-31.290	-6.763	1.00	0.00
ATOM	194	N	GLY	22	6.040	-30.990	-4.538	1.00	0.00
ATOM	195	CA	GLY	22	5.053	-32.016	-4.265	1.00	0.00
ATOM	196	C	GLY	22	3.759	-31.767	-5.038	1.00	0.00
ATOM	197	O	GLY	22	3.247	-32.680	-5.684	1.00	0.00
ATOM	198	N	VAL	23	3.250	-30.530	-4.981	1.00	0.00
ATOM	199	CA	VAL	23	2.042	-30.122	-5.688	1.00	0.00
ATOM	200	CB	VAL	23	1.742	-28.631	-5.427	1.00	0.00
ATOM	201	CG1	VAL	23	0.658	-28.102	-6.373	1.00	0.00
ATOM	202	CG2	VAL	23	1.262	-28.420	-3.987	1.00	0.00
ATOM	203	C	VAL	23	2.201	-30.423	-7.179	1.00	0.00
ATOM	204	O	VAL	23	1.293	-30.970	-7.797	1.00	0.00
ATOM	205	N	ARG	24	3.352	-30.075	-7.761	1.00	0.00
ATOM	206	CA	ARG	24	3.621	-30.316	-9.170	1.00	0.00
ATOM	207	CB	ARG	24	4.907	-29.559	-9.572	1.00	0.00
ATOM	208	CG	ARG	24	5.002	-29.139	-11.051	1.00	0.00
ATOM	209	CD	ARG	24	5.566	-30.203	-12.003	1.00	0.00
ATOM	210	NE	ARG	24	4.636	-31.320	-12.187	1.00	0.00

79

80

ATOM	211	CZ	ARG	24	4.915	-32.489	-12.780	1.00	0.00
ATOM	212	NH1	ARG	24	4.089	-33.525	-12.583	1.00	0.00
ATOM	213	NH2	ARG	24	6.009	-32.623	-13.540	1.00	0.00
ATOM	214	C	ARG	24	3.691	-31.825	-9.446	1.00	0.00
ATOM	215	O	ARG	24	2.960	-32.336	-10.297	1.00	0.00
ATOM	216	N	LYS	25	4.586	-32.530	-8.748	1.00	0.00
ATOM	217	CA	LYS	25	4.845	-33.956	-8.898	1.00	0.00
ATOM	218	CB	LYS	25	5.943	-34.410	-7.919	1.00	0.00
ATOM	219	CG	LYS	25	7.327	-33.811	-8.234	1.00	0.00
ATOM	220	CD	LYS	25	8.407	-34.890	-8.405	1.00	0.00
ATOM	221	CE	LYS	25	8.719	-35.591	-7.075	1.00	0.00
ATOM	222	NZ	LYS	25	9.766	-36.619	-7.225	1.00	0.00
ATOM	223	C	LYS	25	3.616	-34.849	-8.740	1.00	0.00
ATOM	224	O	LYS	25	3.282	-35.591	-9.663	1.00	0.00
ATOM	225	N	TYR	26	2.983	-34.815	-7.566	1.00	0.00
ATOM	226	CA	TYR	26	1.861	-35.687	-7.237	1.00	0.00
ATOM	227	CB	TYR	26	1.923	-36.027	-5.739	1.00	0.00
ATOM	228	CG	TYR	26	3.345	-36.226	-5.235	1.00	0.00
ATOM	229	CD1	TYR	26	4.221	-37.098	-5.908	1.00	0.00
ATOM	230	CE1	TYR	26	5.542	-37.257	-5.461	1.00	0.00
ATOM	231	CZ	TYR	26	5.994	-36.549	-4.333	1.00	0.00
ATOM	232	OH	TYR	26	7.281	-36.703	-3.906	1.00	0.00
ATOM	233	CE2	TYR	26	5.122	-35.682	-3.655	1.00	0.00
ATOM	234	CD2	TYR	26	3.800	-35.522	-4.106	1.00	0.00
ATOM	235	C	TYR	26	0.518	-35.091	-7.647	1.00	0.00
ATOM	236	O	TYR	26	-0.364	-35.826	-8.088	1.00	0.00
ATOM	237	N	GLY	27	0.371	-33.771	-7.501	1.00	0.00
ATOM	238	CA	GLY	27	-0.845	-33.042	-7.826	1.00	0.00
ATOM	239	C	GLY	27	-1.284	-32.213	-6.621	1.00	0.00
ATOM	240	O	GLY	27	-0.904	-32.504	-5.486	1.00	0.00
ATOM	241	N	GLU	28	-2.091	-31.177	-6.866	1.00	0.00
ATOM	242	CA	GLU	28	-2.603	-30.327	-5.802	1.00	0.00
ATOM	243	CB	GLU	28	-3.093	-28.993	-6.387	1.00	0.00
ATOM	244	CG	GLU	28	-3.132	-27.890	-5.318	1.00	0.00
ATOM	245	CD	GLU	28	-3.327	-26.504	-5.925	1.00	0.00
ATOM	246	OE1	GLU	28	-2.452	-26.100	-6.724	1.00	0.00
ATOM	247	OE2	GLU	28	-4.314	-25.839	-5.546	1.00	0.00
ATOM	248	C	GLU	28	-3.697	-31.101	-5.061	1.00	0.00
ATOM	249	O	GLU	28	-4.330	-31.989	-5.634	1.00	0.00
ATOM	250	N	GLY	29	-3.910	-30.785	-3.783	1.00	0.00
ATOM	251	CA	GLY	29	-4.904	-31.468	-2.972	1.00	0.00
ATOM	252	C	GLY	29	-4.471	-32.893	-2.634	1.00	0.00
ATOM	253	O	GLY	29	-5.292	-33.806	-2.626	1.00	0.00
ATOM	254	N	ASN	30	-3.176	-33.079	-2.348	1.00	0.00
ATOM	255	CA	ASN	30	-2.558	-34.348	-1.980	1.00	0.00
ATOM	256	CB	ASN	30	-1.776	-34.938	-3.170	1.00	0.00
ATOM	257	CG	ASN	30	-2.590	-35.293	-4.416	1.00	0.00
ATOM	258	OD1	ASN	30	-2.027	-35.389	-5.503	1.00	0.00
ATOM	259	ND2	ASN	30	-3.895	-35.528	-4.291	1.00	0.00
ATOM	260	C	ASN	30	-1.613	-34.049	-0.815	1.00	0.00

(42)

特開2003-135087

81				82				
ATOM	261	O	ASN	30	-0.504	-34.570	-0.749	1.00 0.00
ATOM	262	N	TRP	31	-2.056	-33.180	0.095	1.00 0.00
ATOM	263	CA	TRP	31	-1.329	-32.701	1.262	1.00 0.00
ATOM	264	CB	TRP	31	-2.269	-31.812	2.081	1.00 0.00
ATOM	265	CG	TRP	31	-3.023	-30.838	1.233	1.00 0.00
ATOM	266	CD1	TRP	31	-4.367	-30.716	1.172	1.00 0.00
ATOM	267	NE1	TRP	31	-4.701	-29.740	0.256	1.00 0.00
ATOM	268	CE2	TRP	31	-3.578	-29.185	-0.317	1.00 0.00
ATOM	269	CZ2	TRP	31	-3.395	-28.190	-1.287	1.00 0.00
ATOM	270	CH2	TRP	31	-2.090	-27.851	-1.671	1.00 0.00
ATOM	271	CZ3	TRP	31	-0.990	-28.498	-1.091	1.00 0.00
ATOM	272	CE3	TRP	31	-1.187	-29.496	-0.123	1.00 0.00
ATOM	273	CD2	TRP	31	-2.485	-29.866	0.290	1.00 0.00
ATOM	274	C	TRP	31	-0.740	-33.832	2.092	1.00 0.00
ATOM	275	O	TRP	31	0.415	-33.764	2.503	1.00 0.00
ATOM	276	N	SER	32	-1.527	-34.877	2.330	1.00 0.00
ATOM	277	CA	SER	32	-1.082	-36.032	3.100	1.00 0.00
ATOM	278	CB	SER	32	-2.264	-36.982	3.320	1.00 0.00
ATOM	279	OG	SER	32	-3.016	-37.167	2.132	1.00 0.00
ATOM	280	C	SER	32	0.109	-36.724	2.425	1.00 0.00
ATOM	281	O	SER	32	1.066	-37.120	3.089	1.00 0.00
ATOM	282	N	LYS	33	0.050	-36.863	1.098	1.00 0.00
ATOM	283	CA	LYS	33	1.086	-37.498	0.298	1.00 0.00
ATOM	284	CB	LYS	33	0.616	-37.725	-1.152	1.00 0.00
ATOM	285	CG	LYS	33	-0.573	-38.689	-1.342	1.00 0.00
ATOM	286	CD	LYS	33	-1.854	-38.224	-0.635	1.00 0.00
ATOM	287	CE	LYS	33	-3.119	-38.957	-1.082	1.00 0.00
ATOM	288	NZ	LYS	33	-4.290	-38.484	-0.314	1.00 0.00
ATOM	289	C	LYS	33	2.333	-36.614	0.335	1.00 0.00
ATOM	290	O	LYS	33	3.422	-37.088	0.652	1.00 0.00
ATOM	291	N	ILE	34	2.163	-35.326	0.022	1.00 0.00
ATOM	292	CA	ILE	34	3.228	-34.333	0.016	1.00 0.00
ATOM	293	CB	ILE	34	2.656	-32.946	-0.339	1.00 0.00
ATOM	294	CG2	ILE	34	3.731	-31.864	-0.160	1.00 0.00
ATOM	295	CG1	ILE	34	2.167	-32.957	-1.800	1.00 0.00
ATOM	296	CD1	ILE	34	1.282	-31.768	-2.177	1.00 0.00
ATOM	297	C	ILE	34	3.951	-34.355	1.363	1.00 0.00
ATOM	298	O	ILE	34	5.176	-34.399	1.391	1.00 0.00
ATOM	299	N	LEU	35	3.198	-34.343	2.467	1.00 0.00
ATOM	300	CA	LEU	35	3.733	-34.388	3.820	1.00 0.00
ATOM	301	CB	LEU	35	2.577	-34.247	4.820	1.00 0.00
ATOM	302	CG	LEU	35	2.991	-34.350	6.298	1.00 0.00
ATOM	303	CD1	LEU	35	3.968	-33.239	6.706	1.00 0.00
ATOM	304	CD2	LEU	35	1.730	-34.280	7.166	1.00 0.00
ATOM	305	C	LEU	35	4.513	-35.687	4.044	1.00 0.00
ATOM	306	O	LEU	35	5.592	-35.662	4.633	1.00 0.00
ATOM	307	N	LEU	36	3.978	-36.826	3.585	1.00 0.00
ATOM	308	CA	LEU	36	4.631	-38.119	3.746	1.00 0.00
ATOM	309	CB	LEU	36	3.697	-39.237	3.251	1.00 0.00
ATOM	310	CG	LEU	36	4.242	-40.660	3.476	1.00 0.00

(43)

特開2003-135087

83				84				
ATOM	311	CD1 LEU	36	3.065	-41.628	3.660	1.00	0.00
ATOM	312	CD2 LEU	36	5.087	-41.160	2.295	1.00	0.00
ATOM	313	C LEU	36	5.993	-38.126	3.052	1.00	0.00
ATOM	314	O LEU	36	6.997	-38.486	3.667	1.00	0.00
ATOM	315	N HIS	37	6.026	-37.731	1.775	1.00	0.00
ATOM	316	CA HIS	37	7.244	-37.689	0.978	1.00	0.00
ATOM	317	CB HIS	37	6.894	-37.375	-0.483	1.00	0.00
ATOM	318	CG HIS	37	6.037	-38.428	-1.141	1.00	0.00
ATOM	319	ND1 HIS	37	6.457	-39.739	-1.297	1.00	0.00
ATOM	320	CE1 HIS	37	5.467	-40.406	-1.914	1.00	0.00
ATOM	321	NE2 HIS	37	4.413	-39.634	-2.183	1.00	0.00
ATOM	322	CD2 HIS	37	4.779	-38.384	-1.692	1.00	0.00
ATOM	323	C HIS	37	8.226	-36.659	1.539	1.00	0.00
ATOM	324	O HIS	37	9.369	-36.991	1.848	1.00	0.00
ATOM	325	N TYR	38	7.770	-35.411	1.661	1.00	0.00
ATOM	326	CA TYR	38	8.529	-34.282	2.161	1.00	0.00
ATOM	327	CB TYR	38	8.345	-33.090	1.221	1.00	0.00
ATOM	328	CG TYR	38	8.804	-33.240	-0.220	1.00	0.00
ATOM	329	CD1 TYR	38	7.893	-33.018	-1.271	1.00	0.00
ATOM	330	CE1 TYR	38	8.315	-33.120	-2.608	1.00	0.00
ATOM	331	CZ TYR	38	9.648	-33.443	-2.903	1.00	0.00
ATOM	332	OH TYR	38	10.055	-33.526	-4.203	1.00	0.00
ATOM	333	CE2 TYR	38	10.559	-33.675	-1.857	1.00	0.00
ATOM	334	CD2 TYR	38	10.139	-33.572	-0.519	1.00	0.00
ATOM	335	C TYR	38	8.034	-33.923	3.563	1.00	0.00
ATOM	336	O TYR	38	7.074	-33.172	3.719	1.00	0.00
ATOM	337	N LYS	39	8.696	-34.462	4.588	1.00	0.00
ATOM	338	CA LYS	39	8.345	-34.225	5.980	1.00	0.00
ATOM	339	CB LYS	39	8.977	-35.322	6.843	1.00	0.00
ATOM	340	CG LYS	39	8.383	-36.687	6.457	1.00	0.00
ATOM	341	CD LYS	39	8.975	-37.820	7.298	1.00	0.00
ATOM	342	CE LYS	39	8.376	-39.154	6.836	1.00	0.00
ATOM	343	NZ LYS	39	8.907	-40.293	7.608	1.00	0.00
ATOM	344	C LYS	39	8.777	-32.819	6.409	1.00	0.00
ATOM	345	O LYS	39	9.949	-32.467	6.285	1.00	0.00
ATOM	346	N PHE	40	7.821	-32.022	6.903	1.00	0.00
ATOM	347	CA PHE	40	8.017	-30.646	7.351	1.00	0.00
ATOM	348	CB PHE	40	6.885	-29.782	6.776	1.00	0.00
ATOM	349	CG PHE	40	6.731	-29.758	5.266	1.00	0.00
ATOM	350	CD1 PHE	40	5.479	-29.451	4.700	1.00	0.00
ATOM	351	CE1 PHE	40	5.322	-29.416	3.305	1.00	0.00
ATOM	352	CZ PHE	40	6.411	-29.691	2.467	1.00	0.00
ATOM	353	CE2 PHE	40	7.659	-29.998	3.031	1.00	0.00
ATOM	354	CD2 PHE	40	7.823	-30.029	4.421	1.00	0.00
ATOM	355	C PHE	40	8.043	-30.560	8.881	1.00	0.00
ATOM	356	O PHE	40	7.864	-31.565	9.568	1.00	0.00
ATOM	357	N ASN	41	8.263	-29.351	9.414	1.00	0.00
ATOM	358	CA ASN	41	8.334	-29.087	10.848	1.00	0.00
ATOM	359	CB ASN	41	9.060	-27.758	11.114	1.00	0.00
ATOM	360	CG ASN	41	10.518	-27.788	10.662	1.00	0.00

85				86				
ATOM	361	OD1 ASN	41	11.407	-28.099	11.450	1.00	0.00
ATOM	362	ND2 ASN	41	10.772	-27.456	9.398	1.00	0.00
ATOM	363	C ASN	41	6.942	-29.092	11.485	1.00	0.00
ATOM	364	O ASN	41	6.445	-28.051	11.911	1.00	0.00
ATOM	365	N ASN	42	6.324	-30.277	11.554	1.00	0.00
ATOM	366	CA ASN	42	5.009	-30.517	12.138	1.00	0.00
ATOM	367	CB ASN	42	5.064	-30.327	13.664	1.00	0.00
ATOM	368	CG ASN	42	3.854	-30.939	14.368	1.00	0.00
ATOM	369	OD1 ASN	42	3.961	-31.998	14.980	1.00	0.00
ATOM	370	ND2 ASN	42	2.697	-30.282	14.292	1.00	0.00
ATOM	371	C ASN	42	3.925	-29.676	11.457	1.00	0.00
ATOM	372	O ASN	42	3.353	-28.768	12.059	1.00	0.00
ATOM	373	N ARG	43	3.644	-29.993	10.190	1.00	0.00
ATOM	374	CA ARG	43	2.639	-29.332	9.372	1.00	0.00
ATOM	375	CB ARG	43	3.237	-28.929	8.022	1.00	0.00
ATOM	376	CG ARG	43	3.981	-27.595	8.006	1.00	0.00
ATOM	377	CD ARG	43	5.068	-27.458	9.060	1.00	0.00
ATOM	378	NE ARG	43	5.867	-26.256	8.789	1.00	0.00
ATOM	379	CZ ARG	43	5.530	-25.007	9.152	1.00	0.00
ATOM	380	NH1 ARG	43	4.407	-24.790	9.849	1.00	0.00
ATOM	381	NH2 ARG	43	6.321	-23.989	8.805	1.00	0.00
ATOM	382	C ARG	43	1.501	-30.313	9.111	1.00	0.00
ATOM	383	O ARG	43	1.729	-31.402	8.590	1.00	0.00
ATOM	384	N THR	44	0.282	-29.907	9.455	1.00	0.00
ATOM	385	CA THR	44	-0.932	-30.678	9.242	1.00	0.00
ATOM	386	CB THR	44	-2.027	-30.134	10.171	1.00	0.00
ATOM	387	CG2 THR	44	-1.608	-30.198	11.644	1.00	0.00
ATOM	388	OG1 THR	44	-2.313	-28.793	9.817	1.00	0.00
ATOM	389	C THR	44	-1.385	-30.526	7.785	1.00	0.00
ATOM	390	O THR	44	-0.929	-29.626	7.080	1.00	0.00
ATOM	391	N SER	45	-2.315	-31.379	7.337	1.00	0.00
ATOM	392	CA SER	45	-2.884	-31.308	5.992	1.00	0.00
ATOM	393	CB SER	45	-4.032	-32.322	5.888	1.00	0.00
ATOM	394	OG SER	45	-4.657	-32.243	4.625	1.00	0.00
ATOM	395	C SER	45	-3.367	-29.872	5.726	1.00	0.00
ATOM	396	O SER	45	-3.120	-29.299	4.663	1.00	0.00
ATOM	397	N VAL	46	-4.032	-29.292	6.734	1.00	0.00
ATOM	398	CA VAL	46	-4.540	-27.930	6.725	1.00	0.00
ATOM	399	CB VAL	46	-5.271	-27.647	8.051	1.00	0.00
ATOM	400	CG1 VAL	46	-5.751	-26.196	8.126	1.00	0.00
ATOM	401	CG2 VAL	46	-6.489	-28.563	8.228	1.00	0.00
ATOM	402	C VAL	46	-3.384	-26.952	6.487	1.00	0.00
ATOM	403	O VAL	46	-3.485	-26.108	5.603	1.00	0.00
ATOM	404	N MET	47	-2.296	-27.068	7.263	1.00	0.00
ATOM	405	CA MET	47	-1.121	-26.205	7.147	1.00	0.00
ATOM	406	CB MET	47	0.000	-26.689	8.089	1.00	0.00
ATOM	407	CG MET	47	0.384	-25.728	9.222	1.00	0.00
ATOM	408	SD MET	47	-0.520	-25.895	10.787	1.00	0.00
ATOM	409	CE MET	47	-2.194	-25.429	10.294	1.00	0.00
ATOM	410	C MET	47	-0.610	-26.170	5.705	1.00	0.00

(45)

特開2003-135087

87

88

ATOM	411	O	MET	47	-0.407	-25.093	5.147	1.00	0.00
ATOM	412	N	LEU	48	-0.396	-27.345	5.095	1.00	0.00
ATOM	413	CA	LEU	48	0.090	-27.410	3.719	1.00	0.00
ATOM	414	CB	LEU	48	0.269	-28.854	3.235	1.00	0.00
ATOM	415	CG	LEU	48	1.537	-29.544	3.756	1.00	0.00
ATOM	416	CD1	LEU	48	1.318	-30.188	5.119	1.00	0.00
ATOM	417	CD2	LEU	48	1.988	-30.628	2.779	1.00	0.00
ATOM	418	C	LEU	48	-0.875	-26.684	2.784	1.00	0.00
ATOM	419	O	LEU	48	-0.453	-25.854	1.978	1.00	0.00
ATOM	420	N	LYS	49	-2.169	-27.005	2.899	1.00	0.00
ATOM	421	CA	LYS	49	-3.211	-26.403	2.089	1.00	0.00
ATOM	422	CB	LYS	49	-4.575	-26.943	2.537	1.00	0.00
ATOM	423	CG	LYS	49	-5.743	-26.327	1.756	1.00	0.00
ATOM	424	CD	LYS	49	-7.037	-26.388	2.572	1.00	0.00
ATOM	425	CE	LYS	49	-7.087	-25.398	3.746	1.00	0.00
ATOM	426	NZ	LYS	49	-8.435	-25.353	4.344	1.00	0.00
ATOM	427	C	LYS	49	-3.167	-24.878	2.181	1.00	0.00
ATOM	428	O	LYS	49	-2.911	-24.212	1.179	1.00	0.00
ATOM	429	N	ASP	50	-3.439	-24.320	3.366	1.00	0.00
ATOM	430	CA	ASP	50	-3.470	-22.879	3.558	1.00	0.00
ATOM	431	CB	ASP	50	-3.982	-22.485	4.951	1.00	0.00
ATOM	432	CG	ASP	50	-3.120	-22.961	6.115	1.00	0.00
ATOM	433	OD1	ASP	50	-1.910	-22.664	6.097	1.00	0.00
ATOM	434	OD2	ASP	50	-3.707	-23.569	7.037	1.00	0.00
ATOM	435	C	ASP	50	-2.166	-22.206	3.125	1.00	0.00
ATOM	436	O	ASP	50	-2.222	-21.148	2.500	1.00	0.00
ATOM	437	N	ARG	51	-1.005	-22.812	3.410	1.00	0.00
ATOM	438	CA	ARG	51	0.271	-22.253	2.989	1.00	0.00
ATOM	439	CB	ARG	51	1.449	-23.110	3.470	1.00	0.00
ATOM	440	CG	ARG	51	2.803	-22.607	2.934	1.00	0.00
ATOM	441	CD	ARG	51	3.151	-21.203	3.444	1.00	0.00
ATOM	442	NE	ARG	51	4.491	-20.786	3.000	1.00	0.00
ATOM	443	CZ	ARG	51	4.904	-19.516	2.844	1.00	0.00
ATOM	444	NH1	ARG	51	6.121	-19.257	2.353	1.00	0.00
ATOM	445	NH2	ARG	51	4.114	-18.493	3.185	1.00	0.00
ATOM	446	C	ARG	51	0.286	-22.118	1.468	1.00	0.00
ATOM	447	O	ARG	51	0.631	-21.055	0.953	1.00	0.00
ATOM	448	N	TRP	52	-0.086	-23.185	0.747	1.00	0.00
ATOM	449	CA	TRP	52	-0.102	-23.144	-0.700	1.00	0.00
ATOM	450	CB	TRP	52	-0.362	-24.524	-1.297	1.00	0.00
ATOM	451	CG	TRP	52	-0.264	-24.541	-2.790	1.00	0.00
ATOM	452	CD1	TRP	52	-1.260	-24.877	-3.635	1.00	0.00
ATOM	453	NE1	TRP	52	-0.825	-24.784	-4.938	1.00	0.00
ATOM	454	CE2	TRP	52	0.486	-24.362	-5.001	1.00	0.00
ATOM	455	CZ2	TRP	52	1.361	-24.110	-6.067	1.00	0.00
ATOM	456	CH2	TRP	52	2.666	-23.675	-5.792	1.00	0.00
ATOM	457	CZ3	TRP	52	3.078	-23.505	-4.460	1.00	0.00
ATOM	458	CE3	TRP	52	2.196	-23.765	-3.397	1.00	0.00
ATOM	459	CD2	TRP	52	0.875	-24.200	-3.637	1.00	0.00
ATOM	460	C	TRP	52	-1.108	-22.115	-1.207	1.00	0.00

(46)

特開2003-135087

89					90				
ATOM	461	O	TRP	52	-0.815	-21.428	-2.181	1.00	0.00
ATOM	462	N	ARG	53	-2.276	-21.984	-0.566	1.00	0.00
ATOM	463	CA	ARG	53	-3.254	-20.990	-0.990	1.00	0.00
ATOM	464	CB	ARG	53	-4.563	-21.091	-0.194	1.00	0.00
ATOM	465	CG	ARG	53	-5.310	-22.403	-0.484	1.00	0.00
ATOM	466	CD	ARG	53	-6.755	-22.388	0.031	1.00	0.00
ATOM	467	NE	ARG	53	-6.838	-22.048	1.459	1.00	0.00
ATOM	468	CZ	ARG	53	-7.980	-21.751	2.103	1.00	0.00
ATOM	469	NH1	ARG	53	-9.160	-21.876	1.486	1.00	0.00
ATOM	470	NH2	ARG	53	-7.937	-21.323	3.373	1.00	0.00
ATOM	471	C	ARG	53	-2.629	-19.595	-0.885	1.00	0.00
ATOM	472	O	ARG	53	-2.676	-18.837	-1.852	1.00	0.00
ATOM	473	N	THR	54	-2.029	-19.266	0.268	1.00	0.00
ATOM	474	CA	THR	54	-1.373	-17.982	0.484	1.00	0.00
ATOM	475	CB	THR	54	-0.752	-17.919	1.893	1.00	0.00
ATOM	476	CG2	THR	54	-0.036	-16.585	2.135	1.00	0.00
ATOM	477	OG1	THR	54	-1.754	-18.064	2.878	1.00	0.00
ATOM	478	C	THR	54	-0.307	-17.747	-0.588	1.00	0.00
ATOM	479	O	THR	54	-0.367	-16.752	-1.306	1.00	0.00
ATOM	480	N	MET	55	0.668	-18.659	-0.689	1.00	0.00
ATOM	481	CA	MET	55	1.765	-18.559	-1.639	1.00	0.00
ATOM	482	CB	MET	55	2.714	-19.757	-1.463	1.00	0.00
ATOM	483	CG	MET	55	3.966	-19.675	-2.352	1.00	0.00
ATOM	484	SD	MET	55	3.728	-20.158	-4.087	1.00	0.00
ATOM	485	CE	MET	55	4.249	-18.650	-4.944	1.00	0.00
ATOM	486	C	MET	55	1.259	-18.412	-3.073	1.00	0.00
ATOM	487	O	MET	55	1.555	-17.409	-3.721	1.00	0.00
ATOM	488	N	LYS	56	0.512	-19.405	-3.576	1.00	0.00
ATOM	489	CA	LYS	56	0.017	-19.384	-4.944	1.00	0.00
ATOM	490	CB	LYS	56	-0.770	-20.657	-5.314	1.00	0.00
ATOM	491	CG	LYS	56	-2.289	-20.579	-5.111	1.00	0.00
ATOM	492	CD	LYS	56	-2.975	-21.937	-5.321	1.00	0.00
ATOM	493	CE	LYS	56	-2.652	-22.647	-6.647	1.00	0.00
ATOM	494	NZ	LYS	56	-3.091	-21.901	-7.842	1.00	0.00
ATOM	495	C	LYS	56	-0.711	-18.077	-5.240	1.00	0.00
ATOM	496	O	LYS	56	-0.475	-17.490	-6.286	1.00	0.00
ATOM	497	N	LYS	57	-1.565	-17.611	-4.322	1.00	0.00
ATOM	498	CA	LYS	57	-2.293	-16.359	-4.478	1.00	0.00
ATOM	499	CB	LYS	57	-3.289	-16.207	-3.319	1.00	0.00
ATOM	500	CG	LYS	57	-4.136	-14.933	-3.425	1.00	0.00
ATOM	501	CD	LYS	57	-5.087	-14.848	-2.225	1.00	0.00
ATOM	502	CE	LYS	57	-5.902	-13.550	-2.270	1.00	0.00
ATOM	503	NZ	LYS	57	-6.787	-13.422	-1.096	1.00	0.00
ATOM	504	C	LYS	57	-1.336	-15.161	-4.550	1.00	0.00
ATOM	505	O	LYS	57	-1.514	-14.297	-5.405	1.00	0.00
ATOM	506	N	LEU	58	-0.343	-15.101	-3.651	1.00	0.00
ATOM	507	CA	LEU	58	0.630	-14.015	-3.562	1.00	0.00
ATOM	508	CB	LEU	58	1.603	-14.289	-2.400	1.00	0.00
ATOM	509	CG	LEU	58	2.548	-13.142	-1.990	1.00	0.00
ATOM	510	CD1	LEU	58	3.655	-12.854	-3.011	1.00	0.00

(47)

特開2003-135087

91				92			
ATOM	511	CD2 LEU	58	1.794	-11.855	-1.637	1.00 0.00
ATOM	512	C LEU	58	1.333	-13.790	-4.903	1.00 0.00
ATOM	513	O LEU	58	1.195	-12.719	-5.491	1.00 0.00
ATOM	514	N LYS	59	2.082	-14.785	-5.396	1.00 0.00
ATOM	515	CA LYS	59	2.775	-14.664	-6.679	1.00 0.00
ATOM	516	CB LYS	59	3.710	-15.862	-6.896	1.00 0.00
ATOM	517	CG LYS	59	4.342	-15.856	-8.301	1.00 0.00
ATOM	518	CD LYS	59	5.279	-17.048	-8.526	1.00 0.00
ATOM	519	CE LYS	59	6.733	-16.758	-8.143	1.00 0.00
ATOM	520	NZ LYS	59	7.544	-17.978	-8.296	1.00 0.00
ATOM	521	C LYS	59	1.752	-14.579	-7.813	1.00 0.00
ATOM	522	O LYS	59	1.916	-13.791	-8.740	1.00 0.00
ATOM	523	N LEU	60	0.719	-15.420	-7.714	1.00 0.00
ATOM	524	CA LEU	60	-0.402	-15.599	-8.620	1.00 0.00
ATOM	525	CB LEU	60	-0.854	-14.294	-9.300	1.00 0.00
ATOM	526	CG LEU	60	-2.285	-14.360	-9.866	1.00 0.00
ATOM	527	CD1 LEU	60	-3.347	-14.436	-8.760	1.00 0.00
ATOM	528	CD2 LEU	60	-2.543	-13.107	-10.713	1.00 0.00
ATOM	529	C LEU	60	-0.142	-16.769	-9.573	1.00 0.00
ATOM	530	O LEU	60	-0.245	-16.636	-10.791	1.00 0.00
ATOM	531	N ILE	61	0.178	-17.931	-8.993	1.00 0.00
ATOM	532	CA ILE	61	0.414	-19.173	-9.714	1.00 0.00
ATOM	533	CB ILE	61	1.238	-20.150	-8.846	1.00 0.00
ATOM	534	CG2 ILE	61	1.113	-21.610	-9.319	1.00 0.00
ATOM	535	CG1 ILE	61	2.707	-19.706	-8.803	1.00 0.00
ATOM	536	CD1 ILE	61	3.575	-20.628	-7.940	1.00 0.00
ATOM	537	C ILE	61	-0.955	-19.766	-10.031	1.00 0.00
ATOM	538	O ILE	61	-1.801	-19.868	-9.139	1.00 0.00
ATOM	539	N SER	62	-1.164	-20.185	-11.282	1.00 0.00
ATOM	540	CA SER	62	-2.395	-20.827	-11.705	1.00 0.00
ATOM	541	CB SER	62	-2.690	-20.485	-13.174	1.00 0.00
ATOM	542	OG SER	62	-1.569	-20.732	-14.000	1.00 0.00
ATOM	543	C SER	62	-2.182	-22.317	-11.447	1.00 0.00
ATOM	544	O SER	62	-2.679	-22.852	-10.455	1.00 0.00
ATOM	545	N SER	63	-1.408	-22.945	-12.336	1.00 0.00
ATOM	546	CA SER	63	-1.010	-24.346	-12.311	1.00 0.00
ATOM	547	CB SER	63	-1.732	-25.097	-13.434	1.00 0.00
ATOM	548	OG SER	63	-3.130	-24.912	-13.328	1.00 0.00
ATOM	549	C SER	63	0.513	-24.481	-12.465	1.00 0.00
ATOM	550	O SER	63	1.031	-25.596	-12.431	1.00 0.00
ATOM	551	N ASP	64	1.228	-23.359	-12.633	1.00 0.00
ATOM	552	CA ASP	64	2.673	-23.272	-12.793	1.00 0.00
ATOM	553	CB ASP	64	3.019	-21.948	-13.503	1.00 0.00
ATOM	554	CG ASP	64	2.433	-20.701	-12.836	1.00 0.00
ATOM	555	OD1 ASP	64	3.225	-19.792	-12.510	1.00 0.00
ATOM	556	OD2 ASP	64	1.188	-20.658	-12.692	1.00 0.00
ATOM	557	C ASP	64	3.354	-23.423	-11.428	1.00 0.00
ATOM	558	O ASP	64	4.029	-22.520	-10.941	1.00 0.00
ATOM	559	N SER	65	3.151	-24.584	-10.799	1.00 0.00
ATOM	560	CA SER	65	3.660	-24.926	-9.479	1.00 0.00

93				94			
ATOM	561	CB	SER	65	2.889	-26.151	-8.974 1.00 0.00
ATOM	562	OG	SER	65	1.501	-25.902	-9.082 1.00 0.00
ATOM	563	C	SER	65	5.176	-25.148	-9.405 1.00 0.00
ATOM	564	O	SER	65	5.683	-25.449	-8.325 1.00 0.00
ATOM	565	N	GLU	66	5.910	-25.007	-10.515 1.00 0.00
ATOM	566	CA	GLU	66	7.354	-25.185	-10.562 1.00 0.00
ATOM	567	CB	GLU	66	7.871	-25.011	-12.000 1.00 0.00
ATOM	568	CG	GLU	66	7.482	-26.169	-12.937 1.00 0.00
ATOM	569	CD	GLU	66	6.002	-26.211	-13.318 1.00 0.00
ATOM	570	OE1	GLU	66	5.563	-27.302	-13.738 1.00 0.00
ATOM	571	OE2	GLU	66	5.336	-25.162	-13.182 1.00 0.00
ATOM	572	C	GLU	66	8.052	-24.203	-9.614 1.00 0.00
ATOM	573	O	GLU	66	8.834	-24.628	-8.762 1.00 0.00
ATOM	574	N	ASP	67	7.769	-22.900	-9.764 1.00 0.00
ATOM	575	CA	ASP	67	8.336	-21.847	-8.933 1.00 0.00
ATOM	576	CB	ASP	67	9.490	-21.119	-9.646 1.00 0.00
ATOM	577	CG	ASP	67	10.158	-20.070	-8.753 1.00 0.00
ATOM	578	OD1	ASP	67	9.915	-18.865	-8.987 1.00 0.00
ATOM	579	OD2	ASP	67	10.903	-20.479	-7.835 1.00 0.00
ATOM	580	C	ASP	67	7.230	-20.893	-8.498 1.00 0.00
ATOM	581	OT1	ASP	67	7.289	-20.492	-7.311 1.00 0.00
ATOM	582	OT2	ASP	67	6.704	-20.228	-9.417 1.00 0.00
ATOM	583	O5'	GUA	68	-6.576	-39.100	11.299 1.00 0.00
ATOM	584	C5'	GUA	68	-6.212	-39.919	10.207 1.00 0.00
ATOM	585	C4'	GUA	68	-6.610	-39.269	8.877 1.00 0.00
ATOM	586	O4'	GUA	68	-7.998	-39.006	8.822 1.00 0.00
ATOM	587	C1'	GUA	68	-8.222	-38.094	7.767 1.00 0.00
ATOM	588	N9	GUA	68	-9.518	-37.402	7.945 1.00 0.00
ATOM	589	C8	GUA	68	-9.995	-36.809	9.083 1.00 0.00
ATOM	590	N7	GUA	68	-11.187	-36.297	8.963 1.00 0.00
ATOM	591	C5	GUA	68	-11.523	-36.550	7.638 1.00 0.00
ATOM	592	C6	GUA	68	-12.706	-36.218	6.910 1.00 0.00
ATOM	593	O6	GUA	68	-13.735	-35.692	7.327 1.00 0.00
ATOM	594	N1	GUA	68	-12.613	-36.562	5.566 1.00 0.00
ATOM	595	C2	GUA	68	-11.529	-37.191	4.991 1.00 0.00
ATOM	596	N2	GUA	68	-11.576	-37.424	3.677 1.00 0.00
ATOM	597	N3	GUA	68	-10.434	-37.544	5.680 1.00 0.00
ATOM	598	C4	GUA	68	-10.489	-37.191	6.994 1.00 0.00
ATOM	599	C3'	GUA	68	-5.929	-37.916	8.621 1.00 0.00
ATOM	600	C2'	GUA	68	-7.064	-37.129	7.951 1.00 0.00
ATOM	601	O3'	GUA	68	-4.781	-38.144	7.811 1.00 0.00
ATOM	602	P	THY	69	-3.904	-36.968	7.119 1.00 0.00
ATOM	603	OP1	THY	69	-3.798	-35.827	8.055 1.00 0.00
ATOM	604	OP2	THY	69	-2.679	-37.574	6.552 1.00 0.00
ATOM	605	O5'	THY	69	-4.829	-36.518	5.881 1.00 0.00
ATOM	606	C5'	THY	69	-5.450	-37.479	5.045 1.00 0.00
ATOM	607	C4'	THY	69	-6.564	-36.831	4.222 1.00 0.00
ATOM	608	O4'	THY	69	-7.639	-36.299	4.955 1.00 0.00
ATOM	609	C1'	THY	69	-8.195	-35.221	4.242 1.00 0.00
ATOM	610	N1	THY	69	-9.065	-34.453	5.172 1.00 0.00

(49)

特開2003-135087

95					96				
ATOM	611	C6	THY	69	-8.666	-34.236	6.472	1.00	0.00
ATOM	612	C5	THY	69	-9.498	-33.673	7.383	1.00	0.00
ATOM	613	C7	THY	69	-8.949	-33.445	8.780	1.00	0.00
ATOM	614	C4	THY	69	-10.853	-33.298	7.034	1.00	0.00
ATOM	615	O4	THY	69	-11.677	-32.798	7.793	1.00	0.00
ATOM	616	N3	THY	69	-11.179	-33.546	5.713	1.00	0.00
ATOM	617	C2	THY	69	-10.348	-34.100	4.753	1.00	0.00
ATOM	618	O2	THY	69	-10.753	-34.256	3.604	1.00	0.00
ATOM	619	C3'	THY	69	-6.055	-35.684	3.337	1.00	0.00
ATOM	620	C2'	THY	69	-6.918	-34.510	3.814	1.00	0.00
ATOM	621	O3'	THY	69	-6.223	-36.016	1.969	1.00	0.00
ATOM	622	P	THY	70	-5.460	-35.214	0.794	1.00	0.00
ATOM	623	OP1	THY	70	-4.152	-34.772	1.331	1.00	0.00
ATOM	624	OP2	THY	70	-5.468	-36.086	-0.405	1.00	0.00
ATOM	625	O5'	THY	70	-6.411	-33.936	0.539	1.00	0.00
ATOM	626	C5'	THY	70	-7.631	-34.074	-0.173	1.00	0.00
ATOM	627	C4'	THY	70	-8.608	-32.922	0.090	1.00	0.00
ATOM	628	O4'	THY	70	-8.956	-32.853	1.457	1.00	0.00
ATOM	629	C1'	THY	70	-9.656	-31.641	1.621	1.00	0.00
ATOM	630	N1	THY	70	-9.796	-31.260	3.047	1.00	0.00
ATOM	631	C6	THY	70	-8.713	-31.316	3.885	1.00	0.00
ATOM	632	C5	THY	70	-8.815	-30.941	5.185	1.00	0.00
ATOM	633	C7	THY	70	-7.541	-31.042	5.997	1.00	0.00
ATOM	634	C4	THY	70	-10.070	-30.477	5.744	1.00	0.00
ATOM	635	O4	THY	70	-10.257	-30.103	6.899	1.00	0.00
ATOM	636	N3	THY	70	-11.118	-30.484	4.841	1.00	0.00
ATOM	637	C2	THY	70	-11.031	-30.790	3.495	1.00	0.00
ATOM	638	O2	THY	70	-11.991	-30.601	2.755	1.00	0.00
ATOM	639	C3'	THY	70	-8.091	-31.509	-0.211	1.00	0.00
ATOM	640	C2'	THY	70	-8.786	-30.649	0.854	1.00	0.00
ATOM	641	O3'	THY	70	-8.432	-31.105	-1.524	1.00	0.00
ATOM	642	P	ADE	71	-8.005	-29.657	-2.101	1.00	0.00
ATOM	643	OP1	ADE	71	-6.765	-29.235	-1.410	1.00	0.00
ATOM	644	OP2	ADE	71	-8.048	-29.710	-3.577	1.00	0.00
ATOM	645	O5'	ADE	71	-9.160	-28.667	-1.592	1.00	0.00
ATOM	646	C5'	ADE	71	-10.469	-28.660	-2.122	1.00	0.00
ATOM	647	C4'	ADE	71	-11.291	-27.602	-1.370	1.00	0.00
ATOM	648	O4'	ADE	71	-11.577	-28.035	-0.037	1.00	0.00
ATOM	649	C1'	ADE	71	-11.353	-26.948	0.838	1.00	0.00
ATOM	650	N9	ADE	71	-11.128	-27.319	2.253	1.00	0.00
ATOM	651	C8	ADE	71	-9.979	-27.822	2.795	1.00	0.00
ATOM	652	N7	ADE	71	-9.908	-27.785	4.093	1.00	0.00
ATOM	653	C5	ADE	71	-11.150	-27.282	4.448	1.00	0.00
ATOM	654	C6	ADE	71	-11.725	-27.002	5.697	1.00	0.00
ATOM	655	N6	ADE	71	-11.065	-27.238	6.830	1.00	0.00
ATOM	656	N1	ADE	71	-12.945	-26.439	5.738	1.00	0.00
ATOM	657	C2	ADE	71	-13.574	-26.194	4.589	1.00	0.00
ATOM	658	N3	ADE	71	-13.144	-26.421	3.348	1.00	0.00
ATOM	659	C4	ADE	71	-11.907	-26.987	3.341	1.00	0.00
ATOM	660	C3'	ADE	71	-10.514	-26.276	-1.228	1.00	0.00

97				98				
ATOM	661	C2' ADE	71	-10.062	-26.415	0.222	1.00	0.00
ATOM	662	O3' ADE	71	-11.401	-25.189	-1.391	1.00	0.00
ATOM	663	P GUA	72	-10.914	-23.657	-1.532	1.00	0.00
ATOM	664	OP1 GUA	72	-10.912	-23.277	-2.959	1.00	0.00
ATOM	665	OP2 GUA	72	-9.711	-23.424	-0.694	1.00	0.00
ATOM	666	O5' GUA	72	-12.134	-22.920	-0.801	1.00	0.00
ATOM	667	C5' GUA	72	-13.473	-23.077	-1.225	1.00	0.00
ATOM	668	C4' GUA	72	-14.410	-22.559	-0.130	1.00	0.00
ATOM	669	O4' GUA	72	-14.181	-23.281	1.074	1.00	0.00
ATOM	670	C1' GUA	72	-13.790	-22.415	2.125	1.00	0.00
ATOM	671	N9 GUA	72	-12.720	-23.042	2.938	1.00	0.00
ATOM	672	C8 GUA	72	-11.549	-23.601	2.493	1.00	0.00
ATOM	673	N7 GUA	72	-10.720	-23.959	3.432	1.00	0.00
ATOM	674	C5 GUA	72	-11.417	-23.658	4.597	1.00	0.00
ATOM	675	C6 GUA	72	-11.039	-23.854	5.956	1.00	0.00
ATOM	676	O6 GUA	72	-9.966	-24.288	6.370	1.00	0.00
ATOM	677	N1 GUA	72	-12.042	-23.505	6.851	1.00	0.00
ATOM	678	C2 GUA	72	-13.269	-22.993	6.480	1.00	0.00
ATOM	679	N2 GUA	72	-14.119	-22.651	7.450	1.00	0.00
ATOM	680	N3 GUA	72	-13.614	-22.772	5.201	1.00	0.00
ATOM	681	C4 GUA	72	-12.654	-23.131	4.309	1.00	0.00
ATOM	682	C3' GUA	72	-14.158	-21.082	0.189	1.00	0.00
ATOM	683	C2' GUA	72	-13.245	-21.183	1.409	1.00	0.00
ATOM	684	O3' GUA	72	-15.395	-20.450	0.468	1.00	0.00
ATOM	685	P GUA	73	-15.520	-18.852	0.681	1.00	0.00
ATOM	686	OP1 GUA	73	-16.916	-18.458	0.394	1.00	0.00
ATOM	687	OP2 GUA	73	-14.406	-18.190	-0.033	1.00	0.00
ATOM	688	O5' GUA	73	-15.264	-18.694	2.260	1.00	0.00
ATOM	689	C5' GUA	73	-16.210	-19.163	3.198	1.00	0.00
ATOM	690	C4' GUA	73	-15.642	-19.060	4.614	1.00	0.00
ATOM	691	O4' GUA	73	-14.466	-19.841	4.732	1.00	0.00
ATOM	692	C1' GUA	73	-13.617	-19.204	5.657	1.00	0.00
ATOM	693	N9 GUA	73	-12.236	-19.729	5.569	1.00	0.00
ATOM	694	C8 GUA	73	-11.429	-19.851	4.468	1.00	0.00
ATOM	695	N7 GUA	73	-10.270	-20.405	4.704	1.00	0.00
ATOM	696	C5 GUA	73	-10.300	-20.644	6.075	1.00	0.00
ATOM	697	C6 GUA	73	-9.318	-21.227	6.931	1.00	0.00
ATOM	698	O6 GUA	73	-8.209	-21.651	6.614	1.00	0.00
ATOM	699	N1 GUA	73	-9.743	-21.311	8.254	1.00	0.00
ATOM	700	C2 GUA	73	-10.978	-20.884	8.703	1.00	0.00
ATOM	701	N2 GUA	73	-11.248	-20.978	10.006	1.00	0.00
ATOM	702	N3 GUA	73	-11.900	-20.336	7.903	1.00	0.00
ATOM	703	C4 GUA	73	-11.501	-20.241	6.608	1.00	0.00
ATOM	704	C3' GUA	73	-15.238	-17.630	5.018	1.00	0.00
ATOM	705	C2' GUA	73	-13.721	-17.763	5.179	1.00	0.00
ATOM	706	O3' GUA	73	-15.902	-17.313	6.231	1.00	0.00
ATOM	707	P GUA	74	-15.785	-15.868	6.945	1.00	0.00
ATOM	708	OP1 GUA	74	-17.145	-15.425	7.324	1.00	0.00
ATOM	709	OP2 GUA	74	-14.925	-14.989	6.122	1.00	0.00
ATOM	710	O5' GUA	74	-14.982	-16.245	8.290	1.00	0.00

(51)

特開2003-135087

99

100

ATOM	711	C5'	GUA	74	-15.582	-17.041	9.296	1.00	0.00
ATOM	712	C4'	GUA	74	-14.619	-17.272	10.465	1.00	0.00
ATOM	713	O4'	GUA	74	-13.449	-17.927	9.999	1.00	0.00
ATOM	714	C1'	GUA	74	-12.310	-17.275	10.517	1.00	0.00
ATOM	715	N9	GUA	74	-11.146	-17.482	9.630	1.00	0.00
ATOM	716	C8	GUA	74	-11.053	-17.259	8.280	1.00	0.00
ATOM	717	N7	GUA	74	-9.903	-17.594	7.762	1.00	0.00
ATOM	718	C5	GUA	74	-9.174	-18.068	8.849	1.00	0.00
ATOM	719	C6	GUA	74	-7.854	-18.608	8.909	1.00	0.00
ATOM	720	O6	GUA	74	-7.070	-18.787	7.980	1.00	0.00
ATOM	721	N1	GUA	74	-7.483	-18.962	10.203	1.00	0.00
ATOM	722	C2	GUA	74	-8.298	-18.837	11.310	1.00	0.00
ATOM	723	N2	GUA	74	-7.808	-19.197	12.499	1.00	0.00
ATOM	724	N3	GUA	74	-9.543	-18.349	11.253	1.00	0.00
ATOM	725	C4	GUA	74	-9.922	-17.985	9.999	1.00	0.00
ATOM	726	C3'	GUA	74	-14.152	-15.964	11.125	1.00	0.00
ATOM	727	C2'	GUA	74	-12.751	-15.816	10.537	1.00	0.00
ATOM	728	O3'	GUA	74	-14.125	-16.141	12.534	1.00	0.00
ATOM	729	P	THY	75	-13.784	-14.936	13.559	1.00	0.00
ATOM	730	OP1	THY	75	-13.520	-13.704	12.783	1.00	0.00
ATOM	731	OP2	THY	75	-14.814	-14.929	14.621	1.00	0.00
ATOM	732	O5'	THY	75	-12.390	-15.415	14.211	1.00	0.00
ATOM	733	C5'	THY	75	-12.331	-16.529	15.082	1.00	0.00
ATOM	734	C4'	THY	75	-10.894	-16.777	15.551	1.00	0.00
ATOM	735	O4'	THY	75	-10.064	-16.945	14.414	1.00	0.00
ATOM	736	C1'	THY	75	-8.906	-16.152	14.549	1.00	0.00
ATOM	737	N1	THY	75	-8.372	-15.797	13.205	1.00	0.00
ATOM	738	C6	THY	75	-9.169	-15.160	12.279	1.00	0.00
ATOM	739	C5	THY	75	-8.702	-14.858	11.039	1.00	0.00
ATOM	740	C7	THY	75	-9.642	-14.104	10.115	1.00	0.00
ATOM	741	C4	THY	75	-7.367	-15.231	10.624	1.00	0.00
ATOM	742	O4	THY	75	-6.882	-15.055	9.509	1.00	0.00
ATOM	743	N3	THY	75	-6.628	-15.851	11.614	1.00	0.00
ATOM	744	C2	THY	75	-7.058	-16.144	12.896	1.00	0.00
ATOM	745	O2	THY	75	-6.291	-16.679	13.694	1.00	0.00
ATOM	746	C3'	THY	75	-10.307	-15.603	16.356	1.00	0.00
ATOM	747	C2'	THY	75	-9.409	-14.932	15.319	1.00	0.00
ATOM	748	O3'	THY	75	-9.564	-16.097	17.460	1.00	0.00
ATOM	749	P	THY	76	-8.987	-15.126	18.622	1.00	0.00
ATOM	750	OP1	THY	76	-9.329	-15.722	19.932	1.00	0.00
ATOM	751	OP2	THY	76	-9.391	-13.734	18.322	1.00	0.00
ATOM	752	O5'	THY	76	-7.390	-15.223	18.429	1.00	0.00
ATOM	753	C5'	THY	76	-6.672	-16.360	18.871	1.00	0.00
ATOM	754	C4'	THY	76	-5.211	-16.277	18.418	1.00	0.00
ATOM	755	O4'	THY	76	-5.201	-16.091	17.013	1.00	0.00
ATOM	756	C1'	THY	76	-4.140	-15.244	16.644	1.00	0.00
ATOM	757	N1	THY	76	-4.463	-14.600	15.336	1.00	0.00
ATOM	758	C6	THY	76	-5.602	-13.835	15.209	1.00	0.00
ATOM	759	C5	THY	76	-5.906	-13.211	14.044	1.00	0.00
ATOM	760	C7	THY	76	-7.167	-12.366	14.027	1.00	0.00

101				102				
ATOM	761	C4	THY	76	-5.069	-13.342	12.872	1.00 0.00
ATOM	762	O4	THY	76	-5.269	-12.801	11.788	1.00 0.00
ATOM	763	N3	THY	76	-3.980	-14.179	13.049	1.00 0.00
ATOM	764	C2	THY	76	-3.627	-14.815	14.233	1.00 0.00
ATOM	765	O2	THY	76	-2.611	-15.504	14.276	1.00 0.00
ATOM	766	C3'	THY	76	-4.417	-15.109	19.037	1.00 0.00
ATOM	767	C2'	THY	76	-4.102	-14.245	17.808	1.00 0.00
ATOM	768	O3'	THY	76	-3.279	-15.624	19.726	1.00 0.00
ATOM	769	P	ADE	77	-2.152	-14.683	20.421	1.00 0.00
ATOM	770	OP1	ADE	77	-2.763	-13.399	20.824	1.00 0.00
ATOM	771	OP2	ADE	77	-1.385	-15.475	21.411	1.00 0.00
ATOM	772	O5'	ADE	77	-1.158	-14.412	19.190	1.00 0.00
ATOM	773	C5'	ADE	77	-0.600	-15.502	18.486	1.00 0.00
ATOM	774	C4'	ADE	77	-0.017	-15.037	17.160	1.00 0.00
ATOM	775	O4'	ADE	77	-0.941	-14.287	16.411	1.00 0.00
ATOM	776	C1'	ADE	77	-0.184	-13.656	15.410	1.00 0.00
ATOM	777	N9	ADE	77	-0.987	-12.663	14.678	1.00 0.00
ATOM	778	C8	ADE	77	-2.135	-12.027	15.078	1.00 0.00
ATOM	779	N7	ADE	77	-2.754	-11.401	14.118	1.00 0.00
ATOM	780	C5	ADE	77	-1.934	-11.608	13.015	1.00 0.00
ATOM	781	C6	ADE	77	-2.038	-11.238	11.663	1.00 0.00
ATOM	782	N6	ADE	77	-3.095	-10.578	11.190	1.00 0.00
ATOM	783	N1	ADE	77	-1.034	-11.566	10.826	1.00 0.00
ATOM	784	C2	ADE	77	0.012	-12.232	11.306	1.00 0.00
ATOM	785	N3	ADE	77	0.205	-12.697	12.537	1.00 0.00
ATOM	786	C4	ADE	77	-0.824	-12.335	13.357	1.00 0.00
ATOM	787	C3'	ADE	77	1.201	-14.120	17.296	1.00 0.00
ATOM	788	C2'	ADE	77	0.953	-13.048	16.228	1.00 0.00
ATOM	789	O3'	ADE	77	2.368	-14.884	17.053	1.00 0.00
ATOM	790	P	GUA	78	3.813	-14.433	17.600	1.00 0.00
ATOM	791	OP1	GUA	78	3.633	-13.794	18.925	1.00 0.00
ATOM	792	OP2	GUA	78	4.700	-15.606	17.463	1.00 0.00
ATOM	793	O5'	GUA	78	4.261	-13.311	16.531	1.00 0.00
ATOM	794	C5'	GUA	78	5.173	-13.613	15.491	1.00 0.00
ATOM	795	C4'	GUA	78	5.203	-12.503	14.440	1.00 0.00
ATOM	796	O4'	GUA	78	3.901	-12.138	14.026	1.00 0.00
ATOM	797	C1'	GUA	78	3.986	-10.833	13.501	1.00 0.00
ATOM	798	N9	GUA	78	2.642	-10.225	13.360	1.00 0.00
ATOM	799	C8	GUA	78	1.678	-10.033	14.318	1.00 0.00
ATOM	800	N7	GUA	78	0.585	-9.474	13.876	1.00 0.00
ATOM	801	C5	GUA	78	0.840	-9.268	12.524	1.00 0.00
ATOM	802	C6	GUA	78	0.021	-8.687	11.508	1.00 0.00
ATOM	803	O6	GUA	78	-1.112	-8.223	11.616	1.00 0.00
ATOM	804	N1	GUA	78	0.639	-8.686	10.262	1.00 0.00
ATOM	805	C2	GUA	78	1.904	-9.179	10.018	1.00 0.00
ATOM	806	N2	GUA	78	2.396	-9.053	8.784	1.00 0.00
ATOM	807	N3	GUA	78	2.675	-9.724	10.971	1.00 0.00
ATOM	808	C4	GUA	78	2.091	-9.737	12.198	1.00 0.00
ATOM	809	C3'	GUA	78	5.881	-11.205	14.912	1.00 0.00
ATOM	810	C2'	GUA	78	4.831	-10.143	14.565	1.00 0.00

103				104				
ATOM	811	03' GUA	78	7.113	-11.087	14.212	1.00	0.00
ATOM	812	P GUA	79	8.058	-9.778	14.272	1.00	0.00
ATOM	813	OP1 GUA	79	9.454	-10.207	14.016	1.00	0.00
ATOM	814	OP2 GUA	79	7.737	-9.010	15.493	1.00	0.00
ATOM	815	05' GUA	79	7.552	-8.961	12.987	1.00	0.00
ATOM	816	C5' GUA	79	7.768	-9.467	11.684	1.00	0.00
ATOM	817	C4' GUA	79	7.186	-8.516	10.639	1.00	0.00
ATOM	818	04' GUA	79	5.800	-8.343	10.874	1.00	0.00
ATOM	819	C1' GUA	79	5.462	-6.998	10.628	1.00	0.00
ATOM	820	N9 GUA	79	4.194	-6.667	11.317	1.00	0.00
ATOM	821	C8 GUA	79	3.870	-6.837	12.639	1.00	0.00
ATOM	822	N7 GUA	79	2.645	-6.507	12.937	1.00	0.00
ATOM	823	C5 GUA	79	2.117	-6.071	11.728	1.00	0.00
ATOM	824	C6 GUA	79	0.816	-5.570	11.421	1.00	0.00
ATOM	825	06 GUA	79	-0.137	-5.418	12.183	1.00	0.00
ATOM	826	N1 GUA	79	0.681	-5.230	10.079	1.00	0.00
ATOM	827	C2 GUA	79	1.681	-5.354	9.137	1.00	0.00
ATOM	828	N2 GUA	79	1.431	-4.935	7.894	1.00	0.00
ATOM	829	N3 GUA	79	2.902	-5.828	9.422	1.00	0.00
ATOM	830	C4 GUA	79	3.057	-6.165	10.730	1.00	0.00
ATOM	831	C3' GUA	79	7.814	-7.113	10.699	1.00	0.00
ATOM	832	C2' GUA	79	6.657	-6.265	11.228	1.00	0.00
ATOM	833	03' GUA	79	8.224	-6.747	9.392	1.00	0.00
ATOM	834	P GUA	80	8.997	-5.362	9.083	1.00	0.00
ATOM	835	OP1 GUA	80	9.569	-4.845	10.345	1.00	0.00
ATOM	836	OP2 GUA	80	9.875	-5.573	7.909	1.00	0.00
ATOM	837	05' GUA	80	7.791	-4.389	8.643	1.00	0.00
ATOM	838	C5' GUA	80	7.124	-4.570	7.407	1.00	0.00
ATOM	839	C4' GUA	80	5.967	-3.575	7.280	1.00	0.00
ATOM	840	04' GUA	80	5.018	-3.805	8.306	1.00	0.00
ATOM	841	C1' GUA	80	4.461	-2.566	8.677	1.00	0.00
ATOM	842	N9 GUA	80	3.777	-2.656	9.983	1.00	0.00
ATOM	843	C8 GUA	80	4.269	-3.106	11.181	1.00	0.00
ATOM	844	N7 GUA	80	3.402	-3.092	12.154	1.00	0.00
ATOM	845	C5 GUA	80	2.246	-2.595	11.563	1.00	0.00
ATOM	846	C6 GUA	80	0.949	-2.370	12.118	1.00	0.00
ATOM	847	06 GUA	80	0.567	-2.581	13.267	1.00	0.00
ATOM	848	N1 GUA	80	0.058	-1.851	11.184	1.00	0.00
ATOM	849	C2 GUA	80	0.368	-1.580	9.869	1.00	0.00
ATOM	850	N2 GUA	80	-0.583	-1.033	9.108	1.00	0.00
ATOM	851	N3 GUA	80	1.579	-1.806	9.340	1.00	0.00
ATOM	852	C4 GUA	80	2.469	-2.315	10.236	1.00	0.00
ATOM	853	C3' GUA	80	6.400	-2.107	7.439	1.00	0.00
ATOM	854	C2' GUA	80	5.707	-1.688	8.733	1.00	0.00
ATOM	855	03' GUA	80	5.923	-1.325	6.362	1.00	0.00
ATOM	856	05' CYT	81	-8.829	1.412	13.066	1.00	0.00
ATOM	857	C5' CYT	81	-8.367	2.306	12.075	1.00	0.00
ATOM	858	C4' CYT	81	-7.209	1.683	11.291	1.00	0.00
ATOM	859	04' CYT	81	-6.181	1.252	12.158	1.00	0.00
ATOM	860	C1' CYT	81	-5.374	0.372	11.408	1.00	0.00

(54)

特開2003-135087

105

106

ATOM	861	N1	CYT	81	-4.493	-0.455	12.265	1.00	0.00
ATOM	862	C6	CYT	81	-4.990	-1.033	13.405	1.00	0.00
ATOM	863	C5	CYT	81	-4.249	-1.884	14.148	1.00	0.00
ATOM	864	C4	CYT	81	-2.910	-2.141	13.700	1.00	0.00
ATOM	865	N4	CYT	81	-2.102	-2.947	14.389	1.00	0.00
ATOM	866	N3	CYT	81	-2.442	-1.599	12.569	1.00	0.00
ATOM	867	C2	CYT	81	-3.211	-0.766	11.815	1.00	0.00
ATOM	868	O2	CYT	81	-2.770	-0.319	10.759	1.00	0.00
ATOM	869	C3'	CYT	81	-7.600	0.422	10.504	1.00	0.00
ATOM	870	C2'	CYT	81	-6.416	-0.514	10.741	1.00	0.00
ATOM	871	O3'	CYT	81	-7.789	0.754	9.138	1.00	0.00
ATOM	872	P	CYT	82	-8.206	-0.343	8.024	1.00	0.00
ATOM	873	OP1	CYT	82	-8.956	0.353	6.956	1.00	0.00
ATOM	874	OP2	CYT	82	-8.818	-1.497	8.720	1.00	0.00
ATOM	875	O5'	CYT	82	-6.787	-0.824	7.419	1.00	0.00
ATOM	876	C5'	CYT	82	-5.984	0.044	6.638	1.00	0.00
ATOM	877	C4'	CYT	82	-4.713	-0.666	6.152	1.00	0.00
ATOM	878	O4'	CYT	82	-3.930	-1.087	7.251	1.00	0.00
ATOM	879	C1'	CYT	82	-3.416	-2.385	7.020	1.00	0.00
ATOM	880	N1	CYT	82	-3.289	-3.065	8.327	1.00	0.00
ATOM	881	C6	CYT	82	-4.366	-3.070	9.167	1.00	0.00
ATOM	882	C5	CYT	82	-4.333	-3.664	10.372	1.00	0.00
ATOM	883	C4	CYT	82	-3.097	-4.294	10.745	1.00	0.00
ATOM	884	N4	CYT	82	-2.982	-4.916	11.919	1.00	0.00
ATOM	885	N3	CYT	82	-2.049	-4.313	9.908	1.00	0.00
ATOM	886	C2	CYT	82	-2.114	-3.721	8.681	1.00	0.00
ATOM	887	O2	CYT	82	-1.155	-3.785	7.917	1.00	0.00
ATOM	888	C3'	CYT	82	-5.002	-1.923	5.318	1.00	0.00
ATOM	889	C2'	CYT	82	-4.515	-3.060	6.204	1.00	0.00
ATOM	890	O3'	CYT	82	-4.293	-1.828	4.091	1.00	0.00
ATOM	891	P	CYT	83	-4.359	-2.966	2.946	1.00	0.00
ATOM	892	OP1	CYT	83	-4.118	-2.315	1.639	1.00	0.00
ATOM	893	OP2	CYT	83	-5.584	-3.769	3.153	1.00	0.00
ATOM	894	O5'	CYT	83	-3.085	-3.895	3.290	1.00	0.00
ATOM	895	C5'	CYT	83	-1.759	-3.457	3.046	1.00	0.00
ATOM	896	C4'	CYT	83	-0.758	-4.554	3.432	1.00	0.00
ATOM	897	O4'	CYT	83	-0.894	-4.856	4.804	1.00	0.00
ATOM	898	C1'	CYT	83	-0.596	-6.217	5.029	1.00	0.00
ATOM	899	N1	CYT	83	-1.317	-6.651	6.251	1.00	0.00
ATOM	900	C6	CYT	83	-2.633	-6.303	6.400	1.00	0.00
ATOM	901	C5	CYT	83	-3.320	-6.569	7.529	1.00	0.00
ATOM	902	C4	CYT	83	-2.602	-7.242	8.575	1.00	0.00
ATOM	903	N4	CYT	83	-3.203	-7.522	9.733	1.00	0.00
ATOM	904	N3	CYT	83	-1.327	-7.624	8.410	1.00	0.00
ATOM	905	C2	CYT	83	-0.656	-7.358	7.252	1.00	0.00
ATOM	906	O2	CYT	83	0.501	-7.752	7.114	1.00	0.00
ATOM	907	C3'	CYT	83	-0.991	-5.874	2.677	1.00	0.00
ATOM	908	C2'	CYT	83	-1.174	-6.902	3.795	1.00	0.00
ATOM	909	O3'	CYT	83	0.128	-6.144	1.847	1.00	0.00
ATOM	910	P	THY	84	0.154	-7.367	0.786	1.00	0.00

107

108

ATOM	911	OP1	THY	84	1.215	-7.091	-0.206	1.00	0.00
ATOM	912	OP2	THY	84	-1.228	-7.630	0.329	1.00	0.00
ATOM	913	O5'	THY	84	0.627	-8.616	1.682	1.00	0.00
ATOM	914	C5'	THY	84	1.954	-8.717	2.159	1.00	0.00
ATOM	915	C4'	THY	84	2.044	-9.817	3.219	1.00	0.00
ATOM	916	O4'	THY	84	1.174	-9.544	4.298	1.00	0.00
ATOM	917	C1'	THY	84	0.973	-10.752	4.992	1.00	0.00
ATOM	918	N1	THY	84	-0.202	-10.654	5.900	1.00	0.00
ATOM	919	C6	THY	84	-1.406	-10.188	5.421	1.00	0.00
ATOM	920	C5	THY	84	-2.506	-10.144	6.211	1.00	0.00
ATOM	921	C7	THY	84	-3.779	-9.631	5.567	1.00	0.00
ATOM	922	C4	THY	84	-2.463	-10.578	7.590	1.00	0.00
ATOM	923	O4	THY	84	-3.421	-10.609	8.357	1.00	0.00
ATOM	924	N3	THY	84	-1.209	-10.981	8.017	1.00	0.00
ATOM	925	C2	THY	84	-0.072	-11.066	7.229	1.00	0.00
ATOM	926	O2	THY	84	0.972	-11.506	7.705	1.00	0.00
ATOM	927	C3'	THY	84	1.638	-11.213	2.715	1.00	0.00
ATOM	928	C2'	THY	84	0.717	-11.720	3.838	1.00	0.00
ATOM	929	O3'	THY	84	2.816	-11.976	2.510	1.00	0.00
ATOM	930	P	ADE	85	2.794	-13.536	2.094	1.00	0.00
ATOM	931	OP1	ADE	85	1.550	-13.822	1.346	1.00	0.00
ATOM	932	OP2	ADE	85	4.106	-13.892	1.511	1.00	0.00
ATOM	933	O5'	ADE	85	2.689	-14.237	3.535	1.00	0.00
ATOM	934	C5'	ADE	85	3.656	-13.981	4.535	1.00	0.00
ATOM	935	C4'	ADE	85	3.220	-14.614	5.855	1.00	0.00
ATOM	936	O4'	ADE	85	2.020	-14.052	6.348	1.00	0.00
ATOM	937	C1'	ADE	85	1.387	-15.033	7.138	1.00	0.00
ATOM	938	N9	ADE	85	-0.026	-14.676	7.375	1.00	0.00
ATOM	939	C8	ADE	85	-0.935	-14.206	6.463	1.00	0.00
ATOM	940	N7	ADE	85	-2.091	-13.885	6.973	1.00	0.00
ATOM	941	C5	ADE	85	-1.944	-14.194	8.322	1.00	0.00
ATOM	942	C6	ADE	85	-2.807	-14.081	9.427	1.00	0.00
ATOM	943	N6	ADE	85	-4.036	-13.573	9.322	1.00	0.00
ATOM	944	N1	ADE	85	-2.379	-14.515	10.629	1.00	0.00
ATOM	945	C2	ADE	85	-1.156	-15.025	10.725	1.00	0.00
ATOM	946	N3	ADE	85	-0.232	-15.153	9.775	1.00	0.00
ATOM	947	C4	ADE	85	-0.698	-14.712	8.573	1.00	0.00
ATOM	948	C3'	ADE	85	2.952	-16.115	5.727	1.00	0.00
ATOM	949	C2'	ADE	85	1.505	-16.235	6.215	1.00	0.00
ATOM	950	O3'	ADE	85	3.892	-16.787	6.543	1.00	0.00
ATOM	951	P	ADE	86	3.931	-18.385	6.668	1.00	0.00
ATOM	952	OP1	ADE	86	5.340	-18.805	6.845	1.00	0.00
ATOM	953	OP2	ADE	86	3.112	-18.961	5.578	1.00	0.00
ATOM	954	O5'	ADE	86	3.155	-18.625	8.046	1.00	0.00
ATOM	955	C5'	ADE	86	3.699	-18.164	9.261	1.00	0.00
ATOM	956	C4'	ADE	86	2.832	-18.612	10.429	1.00	0.00
ATOM	957	O4'	ADE	86	1.552	-18.019	10.330	1.00	0.00
ATOM	958	C1'	ADE	86	0.554	-19.011	10.454	1.00	0.00
ATOM	959	N9	ADE	86	-0.639	-18.570	9.701	1.00	0.00
ATOM	960	C8	ADE	86	-0.786	-18.407	8.347	1.00	0.00

109				110					
ATOM	961	N7 ADE	86	-1.927	-17.886	7.987	1.00	0.00	
ATOM	962	C5 ADE	86	-2.592	-17.702	9.192	1.00	0.00	
ATOM	963	C6 ADE	86	-3.863	-17.194	9.521	1.00	0.00	
ATOM	964	N6 ADE	86	-4.719	-16.751	8.599	1.00	0.00	
ATOM	965	N1 ADE	86	-4.210	-17.129	10.819	1.00	0.00	
ATOM	966	C2 ADE	86	-3.351	-17.547	11.744	1.00	0.00	
ATOM	967	N3 ADE	86	-2.135	-18.052	11.565	1.00	0.00	
ATOM	968	C4 ADE	86	-1.812	-18.109	10.246	1.00	0.00	
ATOM	969	C3' ADE	86	2.617	-20.129	10.461	1.00	0.00	
ATOM	970	C2' ADE	86	1.213	-20.260	9.874	1.00	0.00	
ATOM	971	O3' ADE	86	2.694	-20.546	11.810	1.00	0.00	
ATOM	972	P CYT	87	2.651	-22.098	12.237	1.00	0.00	
ATOM	973	OP1 CYT	87	3.498	-22.247	13.442	1.00	0.00	
ATOM	974	OP2 CYT	87	2.925	-22.921	11.036	1.00	0.00	
ATOM	975	O5' CYT	87	1.111	-22.288	12.664	1.00	0.00	
ATOM	976	C5' CYT	87	0.646	-21.787	13.905	1.00	0.00	
ATOM	977	C4' CYT	87	-0.880	-21.705	13.942	1.00	0.00	
ATOM	978	O4' CYT	87	-1.369	-21.021	12.808	1.00	0.00	
ATOM	979	C1' CYT	87	-2.738	-21.332	12.687	1.00	0.00	
ATOM	980	N1 CYT	87	-3.223	-21.070	11.309	1.00	0.00	
ATOM	981	C6 CYT	87	-2.427	-21.366	10.234	1.00	0.00	
ATOM	982	C5 CYT	87	-2.818	-21.089	8.971	1.00	0.00	
ATOM	983	C4 CYT	87	-4.113	-20.500	8.803	1.00	0.00	
ATOM	984	N4 CYT	87	-4.535	-20.143	7.591	1.00	0.00	
ATOM	985	N3 CYT	87	-4.899	-20.239	9.856	1.00	0.00	
ATOM	986	C2 CYT	87	-4.491	-20.526	11.124	1.00	0.00	
ATOM	987	O2 CYT	87	-5.238	-20.295	12.071	1.00	0.00	
ATOM	988	C3' CYT	87	-1.588	-23.066	13.928	1.00	0.00	
ATOM	989	C2' CYT	87	-2.751	-22.826	12.966	1.00	0.00	
ATOM	990	O3' CYT	87	-1.999	-23.391	15.247	1.00	0.00	
ATOM	991	P CYT	88	-2.813	-24.742	15.606	1.00	0.00	
ATOM	992	OP1 CYT	88	-2.487	-25.771	14.592	1.00	0.00	
ATOM	993	OP2 CYT	88	-2.611	-25.035	17.043	1.00	0.00	
ATOM	994	O5' CYT	88	-4.353	-24.302	15.396	1.00	0.00	
ATOM	995	C5' CYT	88	-4.961	-23.305	16.199	1.00	0.00	
ATOM	996	C4' CYT	88	-6.325	-22.919	15.616	1.00	0.00	
ATOM	997	O4' CYT	88	-6.169	-22.503	14.275	1.00	0.00	
ATOM	998	C1' CYT	88	-7.367	-22.741	13.569	1.00	0.00	
ATOM	999	N1 CYT	88	-7.075	-22.890	12.122	1.00	0.00	
ATOM	1000	C6 CYT	88	-5.958	-23.570	11.718	1.00	0.00	
ATOM	1001	C5 CYT	88	-5.592	-23.630	10.421	1.00	0.00	
ATOM	1002	C4 CYT	88	-6.449	-22.972	9.475	1.00	0.00	
ATOM	1003	N4 CYT	88	-6.141	-22.951	8.178	1.00	0.00	
ATOM	1004	N3 CYT	88	-7.599	-22.402	9.864	1.00	0.00	
ATOM	1005	C2 CYT	88	-7.948	-22.355	11.182	1.00	0.00	
ATOM	1006	O2 CYT	88	-9.022	-21.864	11.517	1.00	0.00	
ATOM	1007	C3' CYT	88	-7.323	-24.085	15.571	1.00	0.00	
ATOM	1008	C2' CYT	88	-7.846	-24.067	14.138	1.00	0.00	
ATOM	1009	O3' CYT	88	-8.349	-23.870	16.530	1.00	0.00	
ATOM	1010	P CYT	89	-9.534	-24.941	16.793	1.00	0.00	

(57)

特開2003-135087

111				112				
ATOM	1011	OP1	CYT	89	-9.077	-26.267	16.323	1.00 0.00
ATOM	1012	OP2	CYT	89	-9.996	-24.775	18.189	1.00 0.00
ATOM	1013	O5'	CYT	89	-10.724	-24.457	15.812	1.00 0.00
ATOM	1014	C5'	CYT	89	-11.459	-23.270	16.060	1.00 0.00
ATOM	1015	C4'	CYT	89	-12.556	-23.082	15.003	1.00 0.00
ATOM	1016	O4'	CYT	89	-11.969	-22.984	13.719	1.00 0.00
ATOM	1017	C1'	CYT	89	-12.742	-23.679	12.762	1.00 0.00
ATOM	1018	N1	CYT	89	-11.824	-24.203	11.719	1.00 0.00
ATOM	1019	C6	CYT	89	-10.690	-24.867	12.110	1.00 0.00
ATOM	1020	C5	CYT	89	-9.767	-25.287	11.224	1.00 0.00
ATOM	1021	C4	CYT	89	-10.028	-25.012	9.844	1.00 0.00
ATOM	1022	N4	CYT	89	-9.151	-25.386	8.916	1.00 0.00
ATOM	1023	N3	CYT	89	-11.158	-24.402	9.454	1.00 0.00
ATOM	1024	C2	CYT	89	-12.088	-23.994	10.366	1.00 0.00
ATOM	1025	O2	CYT	89	-13.129	-23.463	9.983	1.00 0.00
ATOM	1026	C3'	CYT	89	-13.544	-24.258	14.951	1.00 0.00
ATOM	1027	C2'	CYT	89	-13.340	-24.833	13.556	1.00 0.00
ATOM	1028	O3'	CYT	89	-14.868	-23.791	15.167	1.00 0.00
ATOM	1029	P	THY	90	-16.152	-24.779	15.197	1.00 0.00
ATOM	1030	OP1	THY	90	-17.145	-24.214	16.137	1.00 0.00
ATOM	1031	OP2	THY	90	-15.674	-26.167	15.377	1.00 0.00
ATOM	1032	O5'	THY	90	-16.746	-24.653	13.702	1.00 0.00
ATOM	1033	C5'	THY	90	-17.310	-23.441	13.234	1.00 0.00
ATOM	1034	C4'	THY	90	-17.678	-23.557	11.751	1.00 0.00
ATOM	1035	O4'	THY	90	-16.531	-23.968	11.029	1.00 0.00
ATOM	1036	C1'	THY	90	-16.874	-24.960	10.087	1.00 0.00
ATOM	1037	N1	THY	90	-15.673	-25.808	9.863	1.00 0.00
ATOM	1038	C6	THY	90	-15.115	-26.493	10.916	1.00 0.00
ATOM	1039	C5	THY	90	-13.946	-27.160	10.785	1.00 0.00
ATOM	1040	C7	THY	90	-13.455	-27.923	12.002	1.00 0.00
ATOM	1041	C4	THY	90	-13.212	-27.154	9.542	1.00 0.00
ATOM	1042	O4	THY	90	-12.118	-27.681	9.370	1.00 0.00
ATOM	1043	N3	THY	90	-13.848	-26.473	8.511	1.00 0.00
ATOM	1044	C2	THY	90	-15.068	-25.819	8.604	1.00 0.00
ATOM	1045	O2	THY	90	-15.569	-25.301	7.609	1.00 0.00
ATOM	1046	C3'	THY	90	-18.778	-24.594	11.468	1.00 0.00
ATOM	1047	C2'	THY	90	-18.018	-25.719	10.765	1.00 0.00
ATOM	1048	O3'	THY	90	-19.778	-24.006	10.651	1.00 0.00
ATOM	1049	P	ADE	91	-21.167	-24.760	10.301	1.00 0.00
ATOM	1050	OP1	ADE	91	-22.155	-23.738	9.891	1.00 0.00
ATOM	1051	OP2	ADE	91	-21.490	-25.692	11.404	1.00 0.00
ATOM	1052	O5'	ADE	91	-20.781	-25.631	9.005	1.00 0.00
ATOM	1053	C5'	ADE	91	-20.640	-25.028	7.733	1.00 0.00
ATOM	1054	C4'	ADE	91	-20.013	-26.008	6.739	1.00 0.00
ATOM	1055	O4'	ADE	91	-18.719	-26.396	7.143	1.00 0.00
ATOM	1056	C1'	ADE	91	-18.389	-27.540	6.392	1.00 0.00
ATOM	1057	N9	ADE	91	-17.233	-28.225	6.996	1.00 0.00
ATOM	1058	C8	ADE	91	-17.036	-28.542	8.314	1.00 0.00
ATOM	1059	N7	ADE	91	-15.863	-29.055	8.571	1.00 0.00
ATOM	1060	C5	ADE	91	-15.255	-29.112	7.320	1.00 0.00

114

ATOM	1061	C6	ADE	91	-13.990	-29.549	6.881	1.00	0.00
ATOM	1062	N6	ADE	91	-13.043	-29.986	7.717	1.00	0.00
ATOM	1063	N1	ADE	91	-13.726	-29.533	5.560	1.00	0.00
ATOM	1064	C2	ADE	91	-14.659	-29.093	4.719	1.00	0.00
ATOM	1065	N3	ADE	91	-15.860	-28.609	5.009	1.00	0.00
ATOM	1066	C4	ADE	91	-16.102	-28.648	6.346	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.778	-27.331	6.575	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.656	-28.374	6.520	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.564	-27.252	5.396	1.00	0.00
ATOM	1070	P	ADE	92	-22.432	-28.490	4.823	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.516	-27.941	3.979	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.758	-29.401	5.942	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.378	-29.235	3.856	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.840	-28.580	2.721	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.710	-29.409	2.103	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.695	-29.642	3.067	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.214	-30.959	2.916	1.00	0.00
ATOM	1078	N9	ADE	92	-17.555	-31.418	4.158	1.00	0.00
ATOM	1079	C8	ADE	92	-18.067	-31.455	5.431	1.00	0.00
ATOM	1080	N7	ADE	92	-17.225	-31.855	6.344	1.00	0.00
ATOM	1081	C5	ADE	92	-16.072	-32.120	5.618	1.00	0.00
ATOM	1082	C6	ADE	92	-14.797	-32.590	5.988	1.00	0.00
ATOM	1083	N6	ADE	92	-14.471	-32.840	7.257	1.00	0.00
ATOM	1084	N1	ADE	92	-13.874	-32.780	5.028	1.00	0.00
ATOM	1085	C2	ADE	92	-14.197	-32.509	3.767	1.00	0.00
ATOM	1086	N3	ADE	92	-15.351	-32.053	3.291	1.00	0.00
ATOM	1087	C4	ADE	92	-16.263	-31.873	4.282	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.164	-30.796	1.615	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.508	-31.720	2.643	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.672	-30.996	0.299	1.00	0.00
ATOM	1091	P	CYT	93	-20.045	-32.299	-0.580	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.282	-31.870	-1.975	1.00	0.00
ATOM	1093	OP2	CYT	93	-21.077	-33.081	0.137	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.672	-33.136	-0.538	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.541	-32.731	-1.288	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.372	-33.677	-1.002	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.110	-33.667	0.383	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.568	-34.909	0.767	1.00	0.00
ATOM	1099	N1	CYT	93	-15.847	-35.123	2.209	1.00	0.00
ATOM	1100	C6	CYT	93	-17.079	-34.800	2.723	1.00	0.00
ATOM	1101	C5	CYT	93	-17.354	-34.928	4.038	1.00	0.00
ATOM	1102	C4	CYT	93	-16.293	-35.408	4.877	1.00	0.00
ATOM	1103	N4	CYT	93	-16.443	-35.460	6.202	1.00	0.00
ATOM	1104	N3	CYT	93	-15.104	-35.755	4.365	1.00	0.00
ATOM	1105	C2	CYT	93	-14.849	-35.638	3.033	1.00	0.00
ATOM	1106	O2	CYT	93	-13.758	-35.984	2.586	1.00	0

115

116

HEADER 000000

REMARK 0.00528 1.60260 0.02450 0.01756 2.22544 1.68374
0.00000

REMARK 2.54968 0.25168 0.39906 1.17828 0.72066

REMARK 0.00933 0.00454 0.00474 0.01708 0.00833

REMARK 124 123 1 0 0 0

0

REMARK 1378 305 460 273 340

REMARK 0.03109 0.16086 0.02607 0.04416 0.08832 0.16086

REMARK 6.40068 0.30700

REMARK 4 2 2 0 0 0

0

ATOM	1	N	GLU	1	5.831	-27.638	34.866	1.00	0.00
ATOM	2	CA	GLU	1	5.020	-26.444	34.570	1.00	0.00
ATOM	3	CB	GLU	1	5.369	-25.281	35.516	1.00	0.00
ATOM	4	CG	GLU	1	5.556	-25.717	36.978	1.00	0.00
ATOM	5	CD	GLU	1	4.425	-26.617	37.458	1.00	0.00
ATOM	6	OE1	GLU	1	3.428	-26.070	37.972	1.00	0.00
ATOM	7	OE2	GLU	1	4.574	-27.841	37.246	1.00	0.00
ATOM	8	C	GLU	1	5.180	-26.043	33.103	1.00	0.00
ATOM	9	O	GLU	1	5.866	-26.734	32.353	1.00	0.00
ATOM	10	N	LYS	2	4.548	-24.934	32.705	1.00	0.00
ATOM	11	CA	LYS	2	4.596	-24.390	31.356	1.00	0.00
ATOM	12	CB	LYS	2	3.346	-24.793	30.561	1.00	0.00
ATOM	13	CG	LYS	2	3.269	-26.307	30.320	1.00	0.00
ATOM	14	CD	LYS	2	2.086	-26.635	29.402	1.00	0.00
ATOM	15	CE	LYS	2	2.003	-28.146	29.149	1.00	0.00
ATOM	16	NZ	LYS	2	0.873	-28.491	28.265	1.00	0.00
ATOM	17	C	LYS	2	4.692	-22.869	31.459	1.00	0.00
ATOM	18	O	LYS	2	4.172	-22.280	32.406	1.00	0.00
ATOM	19	N	HIS	3	5.358	-22.244	30.485	1.00	0.00
ATOM	20	CA	HIS	3	5.553	-20.802	30.420	1.00	0.00
ATOM	21	CB	HIS	3	6.719	-20.402	31.337	1.00	0.00
ATOM	22	CG	HIS	3	7.992	-21.168	31.072	1.00	0.00
ATOM	23	ND1	HIS	3	8.809	-20.894	29.987	1.00	0.00
ATOM	24	CE1	HIS	3	9.845	-21.746	30.040	1.00	0.00
ATOM	25	NE2	HIS	3	9.778	-22.575	31.084	1.00	0.00
ATOM	26	CD2	HIS	3	8.604	-22.205	31.734	1.00	0.00
ATOM	27	C	HIS	3	5.763	-20.395	28.958	1.00	0.00
ATOM	28	O	HIS	3	6.690	-19.658	28.625	1.00	0.00
ATOM	29	N	ARG	4	4.889	-20.899	28.080	1.00	0.00
ATOM	30	CA	ARG	4	4.911	-20.647	26.649	1.00	0.00
ATOM	31	CB	ARG	4	6.029	-21.480	26.001	1.00	0.00
ATOM	32	CG	ARG	4	6.204	-21.174	24.506	1.00	0.00

117

118

ATOM	33	CD	ARG	4	7.400	-21.938	23.929	1.00	0.00
ATOM	34	NE	ARG	4	8.670	-21.478	24.514	1.00	0.00
ATOM	35	CZ	ARG	4	9.857	-22.093	24.375	1.00	0.00
ATOM	36	NH1	ARG	4	9.960	-23.218	23.655	1.00	0.00
ATOM	37	NH2	ARG	4	10.945	-21.576	24.961	1.00	0.00
ATOM	38	C	ARG	4	3.535	-21.012	26.092	1.00	0.00
ATOM	39	O	ARG	4	2.904	-21.949	26.581	1.00	0.00
ATOM	40	N	ALA	5	3.079	-20.269	25.079	1.00	0.00
ATOM	41	CA	ALA	5	1.792	-20.469	24.425	1.00	0.00
ATOM	42	CB	ALA	5	0.682	-19.777	25.223	1.00	0.00
ATOM	43	C	ALA	5	1.877	-19.931	22.998	1.00	0.00
ATOM	44	O	ALA	5	1.649	-20.669	22.041	1.00	0.00
ATOM	45	N	ARG	6	2.221	-18.644	22.867	1.00	0.00
ATOM	46	CA	ARG	6	2.374	-17.978	21.582	1.00	0.00
ATOM	47	CB	ARG	6	2.741	-16.503	21.788	1.00	0.00
ATOM	48	CG	ARG	6	1.710	-15.759	22.649	1.00	0.00
ATOM	49	CD	ARG	6	2.109	-14.288	22.819	1.00	0.00
ATOM	50	NE	ARG	6	2.024	-13.550	21.552	1.00	0.00
ATOM	51	CZ	ARG	6	0.895	-13.080	21.003	1.00	0.00
ATOM	52	NH1	ARG	6	-0.295	-13.314	21.571	1.00	0.00
ATOM	53	NH2	ARG	6	0.985	-12.387	19.867	1.00	0.00
ATOM	54	C	ARG	6	3.480	-18.696	20.809	1.00	0.00
ATOM	55	O	ARG	6	4.564	-18.909	21.356	1.00	0.00
ATOM	56	N	LYS	7	3.210	-19.092	19.561	1.00	0.00
ATOM	57	CA	LYS	7	4.169	-19.820	18.747	1.00	0.00
ATOM	58	CB	LYS	7	4.107	-21.304	19.154	1.00	0.00
ATOM	59	CG	LYS	7	5.223	-22.187	18.578	1.00	0.00
ATOM	60	CD	LYS	7	5.027	-22.689	17.139	1.00	0.00
ATOM	61	CE	LYS	7	3.745	-23.514	16.941	1.00	0.00
ATOM	62	NZ	LYS	7	2.640	-22.709	16.389	1.00	0.00
ATOM	63	C	LYS	7	3.851	-19.606	17.269	1.00	0.00
ATOM	64	O	LYS	7	2.778	-20.001	16.813	1.00	0.00
ATOM	65	N	ARG	8	4.790	-18.999	16.531	1.00	0.00
ATOM	66	CA	ARG	8	4.690	-18.730	15.103	1.00	0.00
ATOM	67	CB	ARG	8	4.565	-17.219	14.863	1.00	0.00
ATOM	68	CG	ARG	8	4.288	-16.918	13.381	1.00	0.00
ATOM	69	CD	ARG	8	2.886	-16.349	13.131	1.00	0.00
ATOM	70	NE	ARG	8	1.814	-17.221	13.637	1.00	0.00
ATOM	71	CZ	ARG	8	0.509	-16.902	13.593	1.00	0.00
ATOM	72	NH1	ARG	8	0.105	-15.774	13.005	1.00	0.00
ATOM	73	NH2	ARG	8	-0.411	-17.690	14.159	1.00	0.00
ATOM	74	C	ARG	8	5.922	-19.340	14.427	1.00	0.00
ATOM	75	O	ARG	8	6.952	-18.689	14.272	1.00	0.00
ATOM	76	N	GLN	9	5.804	-20.610	14.036	1.00	0.00
ATOM	77	CA	GLN	9	6.837	-21.396	13.391	1.00	0.00
ATOM	78	CB	GLN	9	6.522	-22.881	13.601	1.00	0.00
ATOM	79	CG	GLN	9	7.652	-23.792	13.114	1.00	0.00
ATOM	80	CD	GLN	9	7.189	-25.242	13.124	1.00	0.00
ATOM	81	OE1	GLN	9	6.749	-25.753	12.099	1.00	0.00
ATOM	82	NE2	GLN	9	7.279	-25.910	14.273	1.00	0.00

(61)

特開2003-135087

119

120

ATOM	83	C	GLN	9	6.920	-21.037	11.908	1.00	0.00
ATOM	84	O	GLN	9	6.339	-21.722	11.061	1.00	0.00
ATOM	85	N	ALA	10	7.662	-19.968	11.601	1.00	0.00
ATOM	86	CA	ALA	10	7.878	-19.511	10.236	1.00	0.00
ATOM	87	CB	ALA	10	8.831	-18.313	10.236	1.00	0.00
ATOM	88	C	ALA	10	8.437	-20.664	9.398	1.00	0.00
ATOM	89	O	ALA	10	9.244	-21.457	9.884	1.00	0.00
ATOM	90	N	TRP	11	7.986	-20.768	8.146	1.00	0.00
ATOM	91	CA	TRP	11	8.400	-21.837	7.254	1.00	0.00
ATOM	92	CB	TRP	11	7.459	-21.900	6.051	1.00	0.00
ATOM	93	CG	TRP	11	6.122	-22.522	6.328	1.00	0.00
ATOM	94	CD1	TRP	11	5.224	-22.126	7.259	1.00	0.00
ATOM	95	NE1	TRP	11	4.113	-22.944	7.225	1.00	0.00
ATOM	96	CE2	TRP	11	4.242	-23.917	6.256	1.00	0.00
ATOM	97	CZ2	TRP	11	3.414	-24.966	5.827	1.00	0.00
ATOM	98	CH2	TRP	11	3.844	-25.798	4.788	1.00	0.00
ATOM	99	CZ3	TRP	11	5.092	-25.576	4.183	1.00	0.00
ATOM	100	CE3	TRP	11	5.915	-24.523	4.615	1.00	0.00
ATOM	101	CD2	TRP	11	5.516	-23.668	5.664	1.00	0.00
ATOM	102	C	TRP	11	9.868	-21.710	6.846	1.00	0.00
ATOM	103	O	TRP	11	10.400	-20.607	6.735	1.00	0.00
ATOM	104	N	LEU	12	10.506	-22.867	6.640	1.00	0.00
ATOM	105	CA	LEU	12	11.909	-23.000	6.264	1.00	0.00
ATOM	106	CB	LEU	12	12.564	-24.075	7.144	1.00	0.00
ATOM	107	CG	LEU	12	12.354	-23.876	8.656	1.00	0.00
ATOM	108	CD1	LEU	12	13.010	-25.041	9.406	1.00	0.00
ATOM	109	CD2	LEU	12	12.943	-22.548	9.146	1.00	0.00
ATOM	110	C	LEU	12	12.024	-23.386	4.786	1.00	0.00
ATOM	111	O	LEU	12	11.022	-23.740	4.163	1.00	0.00
ATOM	112	N	TRP	13	13.247	-23.334	4.227	1.00	0.00
ATOM	113	CA	TRP	13	13.471	-23.697	2.828	1.00	0.00
ATOM	114	CB	TRP	13	14.940	-23.739	2.386	1.00	0.00
ATOM	115	CG	TRP	13	15.855	-22.945	3.216	1.00	0.00
ATOM	116	CD1	TRP	13	16.076	-21.647	3.020	1.00	0.00
ATOM	117	NE1	TRP	13	16.977	-21.181	3.961	1.00	0.00
ATOM	118	CE2	TRP	13	17.368	-22.205	4.814	1.00	0.00
ATOM	119	CZ2	TRP	13	18.236	-22.277	5.913	1.00	0.00
ATOM	120	CH2	TRP	13	18.406	-23.507	6.573	1.00	0.00
ATOM	121	CZ3	TRP	13	17.710	-24.649	6.130	1.00	0.00
ATOM	122	CE3	TRP	13	16.843	-24.569	5.026	1.00	0.00
ATOM	123	CD2	TRP	13	16.656	-23.348	4.350	1.00	0.00
ATOM	124	C	TRP	13	12.944	-25.086	2.616	1.00	0.00
ATOM	125	O	TRP	13	12.052	-25.268	1.818	1.00	0.00
ATOM	126	N	GLU	14	13.518	-26.047	3.334	1.00	0.00
ATOM	127	CA	GLU	14	13.152	-27.449	3.240	1.00	0.00
ATOM	128	CB	GLU	14	13.779	-28.241	4.394	1.00	0.00
ATOM	129	CG	GLU	14	13.378	-27.725	5.782	1.00	0.00
ATOM	130	CD	GLU	14	14.239	-28.367	6.863	1.00	0.00
ATOM	131	OE1	GLU	14	14.095	-29.595	7.047	1.00	0.00
ATOM	132	OE2	GLU	14	15.042	-27.621	7.464	1.00	0.00

121					122				
ATOM	133	C	GLU	14	11.641	-27.636	3.095	1.00	0.00
ATOM	134	O	GLU	14	11.207	-28.382	2.224	1.00	0.00
ATOM	135	N	GLU	15	10.844	-26.933	3.903	1.00	0.00
ATOM	136	CA	GLU	15	9.398	-26.994	3.820	1.00	0.00
ATOM	137	CB	GLU	15	8.788	-26.273	5.024	1.00	0.00
ATOM	138	CG	GLU	15	9.290	-26.871	6.344	1.00	0.00
ATOM	139	CD	GLU	15	8.401	-26.448	7.501	1.00	0.00
ATOM	140	OE1	GLU	15	8.402	-25.239	7.821	1.00	0.00
ATOM	141	OE2	GLU	15	7.692	-27.332	8.031	1.00	0.00
ATOM	142	C	GLU	15	8.904	-26.442	2.473	1.00	0.00
ATOM	143	O	GLU	15	8.257	-27.168	1.720	1.00	0.00
ATOM	144	N	ASP	16	9.206	-25.175	2.152	1.00	0.00
ATOM	145	CA	ASP	16	8.816	-24.536	0.891	1.00	0.00
ATOM	146	CB	ASP	16	9.464	-23.145	0.788	1.00	0.00
ATOM	147	CG	ASP	16	8.643	-22.078	1.491	1.00	0.00
ATOM	148	OD1	ASP	16	7.793	-21.473	0.804	1.00	0.00
ATOM	149	OD2	ASP	16	8.831	-21.883	2.708	1.00	0.00
ATOM	150	C	ASP	16	9.251	-25.377	-0.315	1.00	0.00
ATOM	151	O	ASP	16	8.439	-25.775	-1.145	1.00	0.00
ATOM	152	N	LYS	17	10.555	-25.632	-0.381	1.00	0.00
ATOM	153	CA	LYS	17	11.311	-26.395	-1.349	1.00	0.00
ATOM	154	CB	LYS	17	12.754	-26.500	-0.787	1.00	0.00
ATOM	155	CG	LYS	17	13.703	-27.273	-1.708	1.00	0.00
ATOM	156	CD	LYS	17	15.052	-27.457	-1.001	1.00	0.00
ATOM	157	CE	LYS	17	16.018	-28.279	-1.862	1.00	0.00
ATOM	158	NZ	LYS	17	17.294	-28.525	-1.162	1.00	0.00
ATOM	159	C	LYS	17	10.621	-27.747	-1.591	1.00	0.00
ATOM	160	O	LYS	17	10.329	-28.094	-2.738	1.00	0.00
ATOM	161	N	ASN	18	10.351	-28.504	-0.520	1.00	0.00
ATOM	162	CA	ASN	18	9.695	-29.806	-0.598	1.00	0.00
ATOM	163	CB	ASN	18	9.667	-30.491	0.773	1.00	0.00
ATOM	164	CG	ASN	18	11.024	-31.061	1.191	1.00	0.00
ATOM	165	OD1	ASN	18	12.011	-30.952	0.467	1.00	0.00
ATOM	166	ND2	ASN	18	11.081	-31.693	2.361	1.00	0.00
ATOM	167	C	ASN	18	8.270	-29.688	-1.130	1.00	0.00
ATOM	168	O	ASN	18	7.907	-30.418	-2.051	1.00	0.00
ATOM	169	N	LEU	19	7.465	-28.784	-0.557	1.00	0.00
ATOM	170	CA	LEU	19	6.082	-28.567	-0.965	1.00	0.00
ATOM	171	CB	LEU	19	5.475	-27.427	-0.132	1.00	0.00
ATOM	172	CG	LEU	19	4.044	-27.040	-0.528	1.00	0.00
ATOM	173	CD1	LEU	19	3.067	-28.215	-0.419	1.00	0.00
ATOM	174	CD2	LEU	19	3.568	-25.885	0.364	1.00	0.00
ATOM	175	C	LEU	19	6.023	-28.277	-2.463	1.00	0.00
ATOM	176	O	LEU	19	5.251	-28.901	-3.188	1.00	0.00
ATOM	177	N	ARG	20	6.854	-27.337	-2.918	1.00	0.00
ATOM	178	CA	ARG	20	6.957	-26.939	-4.308	1.00	0.00
ATOM	179	CB	ARG	20	8.014	-25.836	-4.435	1.00	0.00
ATOM	180	CG	ARG	20	8.134	-25.312	-5.871	1.00	0.00
ATOM	181	CD	ARG	20	9.051	-24.087	-5.917	1.00	0.00
ATOM	182	NE	ARG	20	10.403	-24.414	-5.441	1.00	0.00

(63)

特開2003-135087

123

124

ATOM	183	CZ	ARG	20	11.339	-23.514	-5.100	1.00	0.00
ATOM	184	NH1	ARG	20	11.098	-22.202	-5.223	1.00	0.00
ATOM	185	NH2	ARG	20	12.523	-23.933	-4.635	1.00	0.00
ATOM	186	C	ARG	20	7.265	-28.152	-5.180	1.00	0.00
ATOM	187	O	ARG	20	6.566	-28.384	-6.161	1.00	0.00
ATOM	188	N	SER	21	8.292	-28.930	-4.821	1.00	0.00
ATOM	189	CA	SER	21	8.663	-30.125	-5.570	1.00	0.00
ATOM	190	CB	SER	21	9.865	-30.803	-4.902	1.00	0.00
ATOM	191	OG	SER	21	10.957	-29.911	-4.825	1.00	0.00
ATOM	192	C	SER	21	7.476	-31.091	-5.675	1.00	0.00
ATOM	193	O	SER	21	7.145	-31.563	-6.764	1.00	0.00
ATOM	194	N	GLY	22	6.839	-31.382	-4.538	1.00	0.00
ATOM	195	CA	GLY	22	5.701	-32.277	-4.446	1.00	0.00
ATOM	196	C	GLY	22	4.556	-31.846	-5.356	1.00	0.00
ATOM	197	O	GLY	22	4.134	-32.624	-6.208	1.00	0.00
ATOM	198	N	VAL	23	4.056	-30.618	-5.186	1.00	0.00
ATOM	199	CA	VAL	23	2.958	-30.117	-6.000	1.00	0.00
ATOM	200	CB	VAL	23	2.446	-28.757	-5.499	1.00	0.00
ATOM	201	CG1	VAL	23	1.310	-28.266	-6.407	1.00	0.00
ATOM	202	CG2	VAL	23	1.897	-28.860	-4.070	1.00	0.00
ATOM	203	C	VAL	23	3.350	-30.066	-7.476	1.00	0.00
ATOM	204	O	VAL	23	2.549	-30.433	-8.330	1.00	0.00
ATOM	205	N	ARG	24	4.570	-29.624	-7.796	1.00	0.00
ATOM	206	CA	ARG	24	5.022	-29.544	-9.179	1.00	0.00
ATOM	207	CB	ARG	24	6.443	-28.960	-9.236	1.00	0.00
ATOM	208	CG	ARG	24	6.918	-28.614	-10.655	1.00	0.00
ATOM	209	CD	ARG	24	6.077	-27.484	-11.263	1.00	0.00
ATOM	210	NE	ARG	24	6.691	-26.941	-12.483	1.00	0.00
ATOM	211	CZ	ARG	24	6.269	-25.825	-13.101	1.00	0.00
ATOM	212	NH1	ARG	24	5.213	-25.154	-12.624	1.00	0.00
ATOM	213	NH2	ARG	24	6.903	-25.378	-14.193	1.00	0.00
ATOM	214	C	ARG	24	4.951	-30.913	-9.863	1.00	0.00
ATOM	215	O	ARG	24	4.565	-30.999	-11.026	1.00	0.00
ATOM	216	N	LYS	25	5.328	-31.978	-9.144	1.00	0.00
ATOM	217	CA	LYS	25	5.328	-33.335	-9.673	1.00	0.00
ATOM	218	CB	LYS	25	6.279	-34.202	-8.839	1.00	0.00
ATOM	219	CG	LYS	25	7.748	-33.801	-9.022	1.00	0.00
ATOM	220	CD	LYS	25	8.597	-34.563	-8.000	1.00	0.00
ATOM	221	CE	LYS	25	10.044	-34.057	-7.983	1.00	0.00
ATOM	222	NZ	LYS	25	10.828	-34.707	-6.915	1.00	0.00
ATOM	223	C	LYS	25	3.942	-33.992	-9.703	1.00	0.00
ATOM	224	O	LYS	25	3.543	-34.531	-10.732	1.00	0.00
ATOM	225	N	TYR	26	3.238	-34.001	-8.566	1.00	0.00
ATOM	226	CA	TYR	26	1.961	-34.694	-8.396	1.00	0.00
ATOM	227	CB	TYR	26	1.884	-35.248	-6.962	1.00	0.00
ATOM	228	CG	TYR	26	3.180	-35.770	-6.363	1.00	0.00
ATOM	229	CD1	TYR	26	4.111	-36.486	-7.140	1.00	0.00
ATOM	230	CE1	TYR	26	5.307	-36.944	-6.562	1.00	0.00
ATOM	231	CZ	TYR	26	5.576	-36.691	-5.206	1.00	0.00
ATOM	232	OH	TYR	26	6.738	-37.136	-4.645	1.00	0.00

125				126			
ATOM	233	CE2 TYR	26	4.647	-35.981	-4.427	1.00 0.00
ATOM	234	CD2 TYR	26	3.455	-35.521	-5.007	1.00 0.00
ATOM	235	C TYR	26	0.716	-33.848	-8.653	1.00 0.00
ATOM	236	O TYR	26	-0.308	-34.382	-9.076	1.00 0.00
ATOM	237	N GLY	27	0.784	-32.547	-8.363	1.00 0.00
ATOM	238	CA GLY	27	-0.330	-31.615	-8.478	1.00 0.00
ATOM	239	C GLY	27	-0.853	-31.316	-7.073	1.00 0.00
ATOM	240	O GLY	27	-0.198	-31.651	-6.086	1.00 0.00
ATOM	241	N GLU	28	-2.028	-30.689	-6.972	1.00 0.00
ATOM	242	CA GLU	28	-2.662	-30.350	-5.701	1.00 0.00
ATOM	243	CB GLU	28	-3.341	-28.977	-5.833	1.00 0.00
ATOM	244	CG GLU	28	-2.279	-27.895	-6.085	1.00 0.00
ATOM	245	CD GLU	28	-2.853	-26.487	-6.175	1.00 0.00
ATOM	246	OE1 GLU	28	-2.307	-25.692	-6.974	1.00 0.00
ATOM	247	OE2 GLU	28	-3.802	-26.175	-5.423	1.00 0.00
ATOM	248	C GLU	28	-3.627	-31.469	-5.280	1.00 0.00
ATOM	249	O GLU	28	-3.750	-32.481	-5.969	1.00 0.00
ATOM	250	N GLY	29	-4.311	-31.299	-4.143	1.00 0.00
ATOM	251	CA GLY	29	-5.264	-32.276	-3.631	1.00 0.00
ATOM	252	C GLY	29	-4.622	-33.615	-3.262	1.00 0.00
ATOM	253	O GLY	29	-5.218	-34.668	-3.478	1.00 0.00
ATOM	254	N ASN	30	-3.412	-33.571	-2.697	1.00 0.00
ATOM	255	CA ASN	30	-2.654	-34.737	-2.243	1.00 0.00
ATOM	256	CB ASN	30	-2.092	-35.553	-3.420	1.00 0.00
ATOM	257	CG ASN	30	-1.016	-34.825	-4.215	1.00 0.00
ATOM	258	OD1 ASN	30	0.171	-35.099	-4.060	1.00 0.00
ATOM	259	ND2 ASN	30	-1.424	-33.913	-5.090	1.00 0.00
ATOM	260	C ASN	30	-1.591	-34.274	-1.242	1.00 0.00
ATOM	261	O ASN	30	-0.448	-34.723	-1.252	1.00 0.00
ATOM	262	N TRP	31	-1.993	-33.346	-0.369	1.00 0.00
ATOM	263	CA TRP	31	-1.154	-32.731	0.648	1.00 0.00
ATOM	264	CB TRP	31	-1.951	-31.636	1.358	1.00 0.00
ATOM	265	CG TRP	31	-2.769	-30.798	0.424	1.00 0.00
ATOM	266	CD1 TRP	31	-4.097	-30.936	0.212	1.00 0.00
ATOM	267	NE1 TRP	31	-4.520	-30.018	-0.723	1.00 0.00
ATOM	268	CE2 TRP	31	-3.475	-29.233	-1.161	1.00 0.00
ATOM	269	CZ2 TRP	31	-3.396	-28.181	-2.083	1.00 0.00
ATOM	270	CH2 TRP	31	-2.155	-27.570	-2.313	1.00 0.00
ATOM	271	CZ3 TRP	31	-1.013	-28.016	-1.629	1.00 0.00
ATOM	272	CE3 TRP	31	-1.104	-29.076	-0.706	1.00 0.00
ATOM	273	CD2 TRP	31	-2.338	-29.709	-0.445	1.00 0.00
ATOM	274	C TRP	31	-0.595	-33.787	1.595	1.00 0.00
ATOM	275	O TRP	31	0.603	-33.794	1.867	1.00 0.00
ATOM	276	N SER	32	-1.451	-34.696	2.071	1.00 0.00
ATOM	277	CA SER	32	-1.041	-35.796	2.934	1.00 0.00
ATOM	278	CB SER	32	-2.255	-36.663	3.276	1.00 0.00
ATOM	279	OG SER	32	-1.866	-37.868	3.904	1.00 0.00
ATOM	280	C SER	32	0.042	-36.617	2.228	1.00 0.00
ATOM	281	O SER	32	1.055	-36.957	2.832	1.00 0.00
ATOM	282	N LYS	33	-0.152	-36.926	0.940	1.00 0.00

(65)

特開2003-135087

127

128

ATOM	283	CA	LYS	33	0.830	-37.687	0.183	1.00	0.00
ATOM	284	CB	LYS	33	0.338	-38.008	-1.233	1.00	0.00
ATOM	285	CG	LYS	33	-1.043	-38.672	-1.174	1.00	0.00
ATOM	286	CD	LYS	33	-1.419	-39.317	-2.514	1.00	0.00
ATOM	287	CE	LYS	33	-2.937	-39.501	-2.642	1.00	0.00
ATOM	288	NZ	LYS	33	-3.514	-40.246	-1.506	1.00	0.00
ATOM	289	C	LYS	33	2.161	-36.938	0.195	1.00	0.00
ATOM	290	O	LYS	33	3.192	-37.528	0.491	1.00	0.00
ATOM	291	N	ILE	34	2.152	-35.632	-0.086	1.00	0.00
ATOM	292	CA	ILE	34	3.368	-34.829	-0.056	1.00	0.00
ATOM	293	CB	ILE	34	3.062	-33.396	-0.541	1.00	0.00
ATOM	294	CG2	ILE	34	4.255	-32.453	-0.323	1.00	0.00
ATOM	295	CG1	ILE	34	2.686	-33.437	-2.032	1.00	0.00
ATOM	296	CD1	ILE	34	2.094	-32.123	-2.548	1.00	0.00
ATOM	297	C	ILE	34	4.002	-34.882	1.343	1.00	0.00
ATOM	298	O	ILE	34	5.218	-35.012	1.453	1.00	0.00
ATOM	299	N	LEU	35	3.193	-34.806	2.407	1.00	0.00
ATOM	300	CA	LEU	35	3.644	-34.880	3.794	1.00	0.00
ATOM	301	CB	LEU	35	2.453	-34.604	4.723	1.00	0.00
ATOM	302	CG	LEU	35	2.769	-34.648	6.227	1.00	0.00
ATOM	303	CD1	LEU	35	3.787	-33.574	6.628	1.00	0.00
ATOM	304	CD2	LEU	35	1.457	-34.465	6.997	1.00	0.00
ATOM	305	C	LEU	35	4.289	-36.242	4.083	1.00	0.00
ATOM	306	O	LEU	35	5.212	-36.337	4.891	1.00	0.00
ATOM	307	N	LEU	36	3.816	-37.303	3.422	1.00	0.00
ATOM	308	CA	LEU	36	4.356	-38.644	3.578	1.00	0.00
ATOM	309	CB	LEU	36	3.353	-39.697	3.062	1.00	0.00
ATOM	310	CG	LEU	36	2.509	-40.318	4.188	1.00	0.00
ATOM	311	CD1	LEU	36	1.600	-39.312	4.903	1.00	0.00
ATOM	312	CD2	LEU	36	1.645	-41.449	3.618	1.00	0.00
ATOM	313	C	LEU	36	5.686	-38.761	2.832	1.00	0.00
ATOM	314	O	LEU	36	6.672	-39.234	3.396	1.00	0.00
ATOM	315	N	HIS	37	5.701	-38.349	1.564	1.00	0.00
ATOM	316	CA	HIS	37	6.844	-38.438	0.668	1.00	0.00
ATOM	317	CB	HIS	37	6.401	-38.107	-0.767	1.00	0.00
ATOM	318	CG	HIS	37	5.208	-38.897	-1.267	1.00	0.00
ATOM	319	ND1	HIS	37	4.701	-38.747	-2.548	1.00	0.00
ATOM	320	CE1	HIS	37	3.648	-39.572	-2.662	1.00	0.00
ATOM	321	NE2	HIS	37	3.407	-40.272	-1.557	1.00	0.00
ATOM	322	CD2	HIS	37	4.395	-39.843	-0.683	1.00	0.00
ATOM	323	C	HIS	37	8.011	-37.564	1.132	1.00	0.00
ATOM	324	O	HIS	37	9.127	-38.058	1.282	1.00	0.00
ATOM	325	N	TYR	38	7.759	-36.273	1.360	1.00	0.00
ATOM	326	CA	TYR	38	8.749	-35.305	1.806	1.00	0.00
ATOM	327	CB	TYR	38	8.573	-33.991	1.050	1.00	0.00
ATOM	328	CG	TYR	38	8.742	-34.050	-0.453	1.00	0.00
ATOM	329	CD1	TYR	38	7.647	-34.402	-1.261	1.00	0.00
ATOM	330	CE1	TYR	38	7.793	-34.451	-2.655	1.00	0.00
ATOM	331	CZ	TYR	38	9.029	-34.147	-3.247	1.00	0.00
ATOM	332	OH	TYR	38	9.156	-34.196	-4.604	1.00	0.00

129				130			
ATOM	333	CE2 TYR	38	10.126	-33.795	-2.444	1.00 0.00
ATOM	334	CD2 TYR	38	9.982	-33.747	-1.046	1.00 0.00
ATOM	335	C TYR	38	8.557	-35.041	3.295	1.00 0.00
ATOM	336	O TYR	38	7.490	-35.310	3.838	1.00 0.00
ATOM	337	N LYS	39	9.584	-34.514	3.965	1.00 0.00
ATOM	338	CA LYS	39	9.522	-34.206	5.386	1.00 0.00
ATOM	339	CB LYS	39	10.812	-34.654	6.083	1.00 0.00
ATOM	340	CG LYS	39	11.132	-36.149	5.911	1.00 0.00
ATOM	341	CD LYS	39	10.010	-37.087	6.398	1.00 0.00
ATOM	342	CE LYS	39	9.238	-37.779	5.257	1.00 0.00
ATOM	343	NZ LYS	39	7.776	-37.599	5.358	1.00 0.00
ATOM	344	C LYS	39	9.267	-32.711	5.589	1.00 0.00
ATOM	345	O LYS	39	9.564	-31.901	4.712	1.00 0.00
ATOM	346	N PHE	40	8.712	-32.365	6.753	1.00 0.00
ATOM	347	CA PHE	40	8.390	-31.009	7.175	1.00 0.00
ATOM	348	CB PHE	40	6.962	-30.620	6.765	1.00 0.00
ATOM	349	CG PHE	40	6.652	-30.565	5.281	1.00 0.00
ATOM	350	CD1 PHE	40	6.391	-31.732	4.538	1.00 0.00
ATOM	351	CE1 PHE	40	6.100	-31.642	3.164	1.00 0.00
ATOM	352	CZ PHE	40	6.068	-30.387	2.529	1.00 0.00
ATOM	353	CE2 PHE	40	6.328	-29.228	3.276	1.00 0.00
ATOM	354	CD2 PHE	40	6.618	-29.316	4.643	1.00 0.00
ATOM	355	C PHE	40	8.494	-30.964	8.700	1.00 0.00
ATOM	356	O PHE	40	8.705	-32.000	9.329	1.00 0.00
ATOM	357	N ASN	41	8.322	-29.780	9.298	1.00 0.00
ATOM	358	CA ASN	41	8.367	-29.620	10.745	1.00 0.00
ATOM	359	CB ASN	41	8.318	-28.133	11.117	1.00 0.00
ATOM	360	CG ASN	41	9.527	-27.322	10.658	1.00 0.00
ATOM	361	OD1 ASN	41	10.570	-27.868	10.309	1.00 0.00
ATOM	362	ND2 ASN	41	9.383	-25.997	10.667	1.00 0.00
ATOM	363	C ASN	41	7.176	-30.358	11.366	1.00 0.00
ATOM	364	O ASN	41	7.350	-31.360	12.054	1.00 0.00
ATOM	365	N ASN	42	5.963	-29.849	11.112	1.00 0.00
ATOM	366	CA ASN	42	4.695	-30.385	11.591	1.00 0.00
ATOM	367	CB ASN	42	4.576	-30.219	13.117	1.00 0.00
ATOM	368	CG ASN	42	3.349	-30.934	13.685	1.00 0.00
ATOM	369	OD1 ASN	42	3.469	-32.009	14.267	1.00 0.00
ATOM	370	ND2 ASN	42	2.164	-30.345	13.534	1.00 0.00
ATOM	371	C ASN	42	3.598	-29.634	10.834	1.00 0.00
ATOM	372	O ASN	42	2.922	-28.771	11.395	1.00 0.00
ATOM	373	N ARG	43	3.452	-29.944	9.542	1.00 0.00
ATOM	374	CA ARG	43	2.495	-29.301	8.652	1.00 0.00
ATOM	375	CB ARG	43	3.217	-28.802	7.394	1.00 0.00
ATOM	376	CG ARG	43	4.473	-27.983	7.715	1.00 0.00
ATOM	377	CD ARG	43	4.191	-26.789	8.624	1.00 0.00
ATOM	378	NE ARG	43	5.395	-25.965	8.759	1.00 0.00
ATOM	379	CZ ARG	43	5.440	-24.819	9.458	1.00 0.00
ATOM	380	NH1 ARG	43	4.339	-24.412	10.100	1.00 0.00
ATOM	381	NH2 ARG	43	6.564	-24.095	9.504	1.00 0.00
ATOM	382	C ARG	43	1.386	-30.280	8.284	1.00 0.00

(67)

特開2003-135087

131

132

ATOM	383	O	ARC	43	1.659	-31.347	7.746	1.00	0.00
ATOM	384	N	THR	44	0.138	-29.906	8.572	1.00	0.00
ATOM	385	CA	THR	44	-1.042	-30.700	8.282	1.00	0.00
ATOM	386	CB	THR	44	-2.156	-30.272	9.249	1.00	0.00
ATOM	387	CG2	THR	44	-1.763	-30.519	10.710	1.00	0.00
ATOM	388	OG1	THR	44	-2.432	-28.896	9.062	1.00	0.00
ATOM	389	C	THR	44	-1.499	-30.446	6.845	1.00	0.00
ATOM	390	O	THR	44	-1.023	-29.519	6.188	1.00	0.00
ATOM	391	N	SER	45	-2.456	-31.251	6.368	1.00	0.00
ATOM	392	CA	SER	45	-3.043	-31.079	5.045	1.00	0.00
ATOM	393	CB	SER	45	-4.104	-32.165	4.816	1.00	0.00
ATOM	394	OG	SER	45	-4.741	-32.023	3.562	1.00	0.00
ATOM	395	C	SER	45	-3.606	-29.651	4.954	1.00	0.00
ATOM	396	O	SER	45	-3.460	-28.991	3.927	1.00	0.00
ATOM	397	N	VAL	46	-4.214	-29.169	6.052	1.00	0.00
ATOM	398	CA	VAL	46	-4.755	-27.820	6.159	1.00	0.00
ATOM	399	CB	VAL	46	-5.393	-27.572	7.543	1.00	0.00
ATOM	400	CG1	VAL	46	-5.997	-26.163	7.612	1.00	0.00
ATOM	401	CG2	VAL	46	-6.497	-28.575	7.881	1.00	0.00
ATOM	402	C	VAL	46	-3.633	-26.808	5.922	1.00	0.00
ATOM	403	O	VAL	46	-3.759	-25.963	5.042	1.00	0.00
ATOM	404	N	MET	47	-2.548	-26.888	6.710	1.00	0.00
ATOM	405	CA	MET	47	-1.409	-25.982	6.604	1.00	0.00
ATOM	406	CB	MET	47	-0.282	-26.448	7.537	1.00	0.00
ATOM	407	CG	MET	47	-0.515	-26.105	9.007	1.00	0.00
ATOM	408	SD	MET	47	-0.299	-24.350	9.392	1.00	0.00
ATOM	409	CE	MET	47	-0.345	-24.452	11.192	1.00	0.00
ATOM	410	C	MET	47	-0.879	-25.915	5.172	1.00	0.00
ATOM	411	O	MET	47	-0.772	-24.835	4.596	1.00	0.00
ATOM	412	N	LEU	48	-0.536	-27.078	4.613	1.00	0.00
ATOM	413	CA	LEU	48	0.013	-27.216	3.272	1.00	0.00
ATOM	414	CB	LEU	48	0.262	-28.707	2.991	1.00	0.00
ATOM	415	CG	LEU	48	1.368	-29.293	3.889	1.00	0.00
ATOM	416	CD1	LEU	48	1.179	-30.795	4.108	1.00	0.00
ATOM	417	CD2	LEU	48	2.761	-29.092	3.285	1.00	0.00
ATOM	418	C	LEU	48	-0.911	-26.573	2.229	1.00	0.00
ATOM	419	O	LEU	48	-0.474	-25.714	1.461	1.00	0.00
ATOM	420	N	LYS	49	-2.185	-26.983	2.206	1.00	0.00
ATOM	421	CA	LYS	49	-3.164	-26.462	1.264	1.00	0.00
ATOM	422	CB	LYS	49	-4.510	-27.180	1.447	1.00	0.00
ATOM	423	CG	LYS	49	-5.502	-26.788	0.335	1.00	0.00
ATOM	424	CD	LYS	49	-6.806	-26.164	0.846	1.00	0.00
ATOM	425	CE	LYS	49	-6.639	-24.836	1.590	1.00	0.00
ATOM	426	NZ	LYS	49	-7.934	-24.206	1.908	1.00	0.00
ATOM	427	C	LYS	49	-3.349	-24.953	1.401	1.00	0.00
ATOM	428	O	LYS	49	-3.266	-24.226	0.411	1.00	0.00
ATOM	429	N	ASP	50	-3.629	-24.488	2.622	1.00	0.00
ATOM	430	CA	ASP	50	-3.875	-23.083	2.894	1.00	0.00
ATOM	431	CB	ASP	50	-4.215	-22.845	4.366	1.00	0.00
ATOM	432	CG	ASP	50	-4.476	-21.359	4.582	1.00	0.00

133				134				
ATOM	433	OD1 ASP	50	-3.656	-20.733	5.287	1.00	0.00
ATOM	434	OD2 ASP	50	-5.478	-20.873	4.014	1.00	0.00
ATOM	435	C ASP	50	-2.689	-22.240	2.462	1.00	0.00
ATOM	436	O ASP	50	-2.870	-21.267	1.745	1.00	0.00
ATOM	437	N ARG	51	-1.480	-22.614	2.876	1.00	0.00
ATOM	438	CA ARG	51	-0.283	-21.881	2.510	1.00	0.00
ATOM	439	CB ARG	51	0.928	-22.560	3.133	1.00	0.00
ATOM	440	CG ARG	51	2.175	-21.723	2.848	1.00	0.00
ATOM	441	CD ARG	51	3.258	-22.180	3.809	1.00	0.00
ATOM	442	NE ARG	51	4.389	-21.256	3.817	1.00	0.00
ATOM	443	CZ ARG	51	5.427	-21.284	2.975	1.00	0.00
ATOM	444	NH1 ARG	51	5.454	-22.151	1.959	1.00	0.00
ATOM	445	NH2 ARG	51	6.443	-20.436	3.155	1.00	0.00
ATOM	446	C ARG	51	-0.143	-21.769	0.993	1.00	0.00
ATOM	447	O ARG	51	0.084	-20.675	0.472	1.00	0.00
ATOM	448	N TRP	52	-0.282	-22.896	0.283	1.00	0.00
ATOM	449	CA TRP	52	-0.177	-22.913	-1.163	1.00	0.00
ATOM	450	CB TRP	52	-0.358	-24.345	-1.658	1.00	0.00
ATOM	451	CG TRP	52	-0.035	-24.559	-3.100	1.00	0.00
ATOM	452	CD1 TRP	52	-0.934	-24.633	-4.102	1.00	0.00
ATOM	453	NE1 TRP	52	-0.287	-24.848	-5.300	1.00	0.00
ATOM	454	CE2 TRP	52	1.081	-24.918	-5.123	1.00	0.00
ATOM	455	CZ2 TRP	52	2.157	-25.119	-6.002	1.00	0.00
ATOM	456	CH2 TRP	52	3.465	-25.138	-5.492	1.00	0.00
ATOM	457	CZ3 TRP	52	3.679	-24.955	-4.115	1.00	0.00
ATOM	458	CE3 TRP	52	2.596	-24.757	-3.243	1.00	0.00
ATOM	459	CD2 TRP	52	1.269	-24.734	-3.722	1.00	0.00
ATOM	460	C TRP	52	-1.198	-21.951	-1.776	1.00	0.00
ATOM	461	O TRP	52	-0.845	-21.146	-2.633	1.00	0.00
ATOM	462	N ARG	53	-2.452	-22.024	-1.320	1.00	0.00
ATOM	463	CA ARG	53	-3.547	-21.172	-1.765	1.00	0.00
ATOM	464	CB ARG	53	-4.816	-21.584	-1.002	1.00	0.00
ATOM	465	CG ARG	53	-6.044	-20.728	-1.330	1.00	0.00
ATOM	466	CD ARG	53	-7.260	-21.197	-0.522	1.00	0.00
ATOM	467	NE ARG	53	-7.127	-20.905	0.918	1.00	0.00
ATOM	468	CZ ARG	53	-8.143	-20.950	1.799	1.00	0.00
ATOM	469	NH1 ARG	53	-7.960	-20.555	3.063	1.00	0.00
ATOM	470	NH2 ARG	53	-9.336	-21.434	1.432	1.00	0.00
ATOM	471	C ARG	53	-3.204	-19.693	-1.548	1.00	0.00
ATOM	472	O ARG	53	-3.288	-18.888	-2.477	1.00	0.00
ATOM	473	N THR	54	-2.826	-19.343	-0.314	1.00	0.00
ATOM	474	CA THR	54	-2.478	-17.999	0.112	1.00	0.00
ATOM	475	CB THR	54	-2.042	-17.998	1.585	1.00	0.00
ATOM	476	CG2 THR	54	-1.850	-16.566	2.072	1.00	0.00
ATOM	477	OG1 THR	54	-3.023	-18.572	2.413	1.00	0.00
ATOM	478	C THR	54	-1.397	-17.386	-0.776	1.00	0.00
ATOM	479	O THR	54	-1.536	-16.236	-1.188	1.00	0.00
ATOM	480	N MET	55	-0.328	-18.129	-1.075	1.00	0.00
ATOM	481	CA MET	55	0.736	-17.603	-1.917	1.00	0.00
ATOM	482	CB MET	55	2.003	-18.453	-1.763	1.00	0.00

(69)

特開2003-135087

135

136

ATOM	483	CG	MET	55	3.217	-17.633	-2.222	1.00	0.00
ATOM	484	SD	MET	55	4.735	-18.562	-2.554	1.00	0.00
ATOM	485	CE	MET	55	4.236	-19.386	-4.084	1.00	0.00
ATOM	486	C	MET	55	0.281	-17.532	-3.380	1.00	0.00
ATOM	487	O	MET	55	0.464	-16.511	-4.042	1.00	0.00
ATOM	488	N	LYS	56	-0.307	-18.626	-3.883	1.00	0.00
ATOM	489	CA	LYS	56	-0.790	-18.759	-5.251	1.00	0.00
ATOM	490	CB	LYS	56	-1.487	-20.117	-5.422	1.00	0.00
ATOM	491	CG	LYS	56	-2.026	-20.330	-6.844	1.00	0.00
ATOM	492	CD	LYS	56	-2.434	-21.788	-7.100	1.00	0.00
ATOM	493	CE	LYS	56	-3.452	-22.310	-6.076	1.00	0.00
ATOM	494	NZ	LYS	56	-4.008	-23.614	-6.484	1.00	0.00
ATOM	495	C	LYS	56	-1.692	-17.597	-5.669	1.00	0.00
ATOM	496	O	LYS	56	-1.511	-17.066	-6.760	1.00	0.00
ATOM	497	N	LYS	57	-2.650	-17.197	-4.825	1.00	0.00
ATOM	498	CA	LYS	57	-3.565	-16.103	-5.144	1.00	0.00
ATOM	499	CB	LYS	57	-4.598	-15.921	-4.016	1.00	0.00
ATOM	500	CG	LYS	57	-3.975	-15.400	-2.708	1.00	0.00
ATOM	501	CD	LYS	57	-4.659	-14.134	-2.169	1.00	0.00
ATOM	502	CE	LYS	57	-3.744	-13.330	-1.228	1.00	0.00
ATOM	503	NZ	LYS	57	-3.116	-14.160	-0.184	1.00	0.00
ATOM	504	C	LYS	57	-2.859	-14.774	-5.454	1.00	0.00
ATOM	505	O	LYS	57	-3.445	-13.920	-6.115	1.00	0.00
ATOM	506	N	LEU	58	-1.626	-14.588	-4.960	1.00	0.00
ATOM	507	CA	LEU	58	-0.847	-13.368	-5.119	1.00	0.00
ATOM	508	CB	LEU	58	-0.208	-13.035	-3.758	1.00	0.00
ATOM	509	CG	LEU	58	0.755	-11.835	-3.766	1.00	0.00
ATOM	510	CD1	LEU	58	0.045	-10.535	-4.164	1.00	0.00
ATOM	511	CD2	LEU	58	1.362	-11.679	-2.367	1.00	0.00
ATOM	512	C	LEU	58	0.225	-13.504	-6.198	1.00	0.00
ATOM	513	O	LEU	58	0.288	-12.687	-7.114	1.00	0.00
ATOM	514	N	LYS	59	1.093	-14.510	-6.065	1.00	0.00
ATOM	515	CA	LYS	59	2.220	-14.714	-6.966	1.00	0.00
ATOM	516	CB	LYS	59	3.369	-15.376	-6.194	1.00	0.00
ATOM	517	CG	LYS	59	3.786	-14.512	-4.990	1.00	0.00
ATOM	518	CD	LYS	59	5.014	-15.068	-4.259	1.00	0.00
ATOM	519	CE	LYS	59	6.322	-14.828	-5.021	1.00	0.00
ATOM	520	NZ	LYS	59	7.482	-15.326	-4.257	1.00	0.00
ATOM	521	C	LYS	59	1.881	-15.498	-8.234	1.00	0.00
ATOM	522	O	LYS	59	2.588	-15.348	-9.227	1.00	0.00
ATOM	523	N	LEU	60	0.831	-16.329	-8.211	1.00	0.00
ATOM	524	CA	LEU	60	0.410	-17.157	-9.337	1.00	0.00
ATOM	525	CB	LEU	60	-0.200	-16.332	-10.485	1.00	0.00
ATOM	526	CG	LEU	60	-1.602	-15.771	-10.184	1.00	0.00
ATOM	527	CD1	LEU	60	-1.575	-14.575	-9.223	1.00	0.00
ATOM	528	CD2	LEU	60	-2.250	-15.326	-11.501	1.00	0.00
ATOM	529	C	LEU	60	1.574	-18.035	-9.799	1.00	0.00
ATOM	530	O	LEU	60	2.223	-17.767	-10.808	1.00	0.00
ATOM	531	N	ILE	61	1.819	-19.088	-9.017	1.00	0.00
ATOM	532	CA	ILE	61	2.878	-20.074	-9.195	1.00	0.00

(70)

特開2003-135087

137				138			
ATOM	533	CB ILE	61	2.647	-21.252	-8.225	1.00 0.00
ATOM	534	CG2 ILE	61	3.725	-22.332	-8.406	1.00 0.00
ATOM	535	CG1 ILE	61	2.651	-20.751	-6.767	1.00 0.00
ATOM	536	CD1 ILE	61	2.107	-21.792	-5.789	1.00 0.00
ATOM	537	C ILE	61	3.000	-20.533	-10.651	1.00 0.00
ATOM	538	O ILE	61	4.053	-20.357	-11.259	1.00 0.00
ATOM	539	N SER	62	1.937	-21.130	-11.201	1.00 0.00
ATOM	540	CA SER	62	1.869	-21.643	-12.565	1.00 0.00
ATOM	541	CB SER	62	2.728	-22.914	-12.703	1.00 0.00
ATOM	542	OG SER	62	4.099	-22.609	-12.857	1.00 0.00
ATOM	543	C SER	62	0.411	-21.963	-12.903	1.00 0.00
ATOM	544	O SER	62	-0.468	-21.873	-12.046	1.00 0.00
ATOM	545	N SER	63	0.168	-22.351	-14.159	1.00 0.00
ATOM	546	CA SER	63	-1.130	-22.734	-14.689	1.00 0.00
ATOM	547	CB SER	63	-1.894	-21.499	-15.181	1.00 0.00
ATOM	548	OG SER	63	-1.998	-20.541	-14.146	1.00 0.00
ATOM	549	C SER	63	-0.887	-23.732	-15.820	1.00 0.00
ATOM	550	O SER	63	0.201	-23.751	-16.396	1.00 0.00
ATOM	551	N ASP	64	-1.889	-24.563	-16.122	1.00 0.00
ATOM	552	CA ASP	64	-1.824	-25.582	-17.159	1.00 0.00
ATOM	553	CB ASP	64	-2.655	-26.792	-16.702	1.00 0.00
ATOM	554	CG ASP	64	-4.144	-26.469	-16.644	1.00 0.00
ATOM	555	OD1 ASP	64	-4.892	-27.096	-17.424	1.00 0.00
ATOM	556	OD2 ASP	64	-4.497	-25.595	-15.820	1.00 0.00
ATOM	557	C ASP	64	-2.290	-25.008	-18.505	1.00 0.00
ATOM	558	O ASP	64	-2.302	-23.792	-18.690	1.00 0.00
ATOM	559	N SER	65	-2.661	-25.901	-19.433	1.00 0.00
ATOM	560	CA SER	65	-3.134	-25.605	-20.779	1.00 0.00
ATOM	561	CB SER	65	-4.612	-25.184	-20.748	1.00 0.00
ATOM	562	OG SER	65	-4.793	-23.866	-20.276	1.00 0.00
ATOM	563	C SER	65	-2.185	-24.666	-21.540	1.00 0.00
ATOM	564	O SER	65	-0.970	-24.755	-21.361	1.00 0.00
ATOM	565	N GLU	66	-2.719	-23.784	-22.395	1.00 0.00
ATOM	566	CA GLU	66	-1.951	-22.839	-23.192	1.00 0.00
ATOM	567	CB GLU	66	-1.236	-23.585	-24.333	1.00 0.00
ATOM	568	CG GLU	66	-0.473	-22.628	-25.251	1.00 0.00
ATOM	569	CD GLU	66	0.386	-23.388	-26.257	1.00 0.00
ATOM	570	OE1 GLU	66	1.609	-23.130	-26.274	1.00 0.00
ATOM	571	OE2 GLU	66	-0.192	-24.225	-26.984	1.00 0.00
ATOM	572	C GLU	66	-2.930	-21.770	-23.678	1.00 0.00
ATOM	573	O GLU	66	-2.890	-20.636	-23.201	1.00 0.00
ATOM	574	N ASP	67	-3.818	-22.164	-24.598	1.00 0.00
ATOM	575	CA ASP	67	-4.878	-21.343	-25.167	1.00 0.00
ATOM	576	CB ASP	67	-5.985	-21.137	-24.117	1.00 0.00
ATOM	577	CG ASP	67	-6.474	-22.458	-23.528	1.00 0.00
ATOM	578	OD1 ASP	67	-5.794	-22.961	-22.604	1.00 0.00
ATOM	579	OD2 ASP	67	-7.513	-22.955	-24.015	1.00 0.00
ATOM	580	C ASP	67	-4.334	-20.032	-25.748	1.00 0.00
ATOM	581	OT1 ASP	67	-3.395	-20.145	-26.566	1.00 0.00
ATOM	582	OT2 ASP	67	-5.067	-19.022	-25.652	1.00 0.00

(71)

特開2003-135087

139

140

ATOM	583	O5'	GUA	68	-5.955	-39.683	11.398	1.00	0.00
ATOM	584	C5'	GUA	68	-5.732	-40.378	10.189	1.00	0.00
ATOM	585	C4'	GUA	68	-6.248	-39.588	8.980	1.00	0.00
ATOM	586	O4'	GUA	68	-7.619	-39.264	9.109	1.00	0.00
ATOM	587	C1'	GUA	68	-7.912	-38.313	8.109	1.00	0.00
ATOM	588	N9	GUA	68	-9.157	-37.568	8.395	1.00	0.00
ATOM	589	C8	GUA	68	-9.508	-36.932	9.556	1.00	0.00
ATOM	590	N7	GUA	68	-10.673	-36.348	9.517	1.00	0.00
ATOM	591	C5	GUA	68	-11.123	-36.592	8.222	1.00	0.00
ATOM	592	C6	GUA	68	-12.325	-36.178	7.569	1.00	0.00
ATOM	593	O6	GUA	68	-13.279	-35.566	8.047	1.00	0.00
ATOM	594	N1	GUA	68	-12.348	-36.537	6.226	1.00	0.00
ATOM	595	C2	GUA	68	-11.349	-37.246	5.589	1.00	0.00
ATOM	596	N2	GUA	68	-11.495	-37.493	4.286	1.00	0.00
ATOM	597	N3	GUA	68	-10.237	-37.665	6.207	1.00	0.00
ATOM	598	C4	GUA	68	-10.182	-37.304	7.516	1.00	0.00
ATOM	599	C3'	GUA	68	-5.550	-38.238	8.755	1.00	0.00
ATOM	600	C2'	GUA	68	-6.704	-37.399	8.193	1.00	0.00
ATOM	601	O3'	GUA	68	-4.455	-38.421	7.864	1.00	0.00
ATOM	602	P	THY	69	-3.598	-37.197	7.229	1.00	0.00
ATOM	603	OP1	THY	69	-2.403	-37.756	6.558	1.00	0.00
ATOM	604	OP2	THY	69	-3.440	-36.142	8.255	1.00	0.00
ATOM	605	O5'	THY	69	-4.569	-36.632	6.077	1.00	0.00
ATOM	606	C5'	THY	69	-5.209	-37.507	5.163	1.00	0.00
ATOM	607	C4'	THY	69	-6.366	-36.799	4.456	1.00	0.00
ATOM	608	O4'	THY	69	-7.427	-36.358	5.269	1.00	0.00
ATOM	609	C1'	THY	69	-8.088	-35.295	4.622	1.00	0.00
ATOM	610	N1	THY	69	-8.922	-34.570	5.615	1.00	0.00
ATOM	611	C6	THY	69	-8.455	-34.388	6.896	1.00	0.00
ATOM	612	C5	THY	69	-9.211	-33.774	7.839	1.00	0.00
ATOM	613	C7	THY	69	-8.574	-33.592	9.206	1.00	0.00
ATOM	614	C4	THY	69	-10.553	-33.310	7.548	1.00	0.00
ATOM	615	O4	THY	69	-11.315	-32.764	8.341	1.00	0.00
ATOM	616	N3	THY	69	-10.950	-33.534	6.240	1.00	0.00
ATOM	617	C2	THY	69	-10.191	-34.128	5.243	1.00	0.00
ATOM	618	O2	THY	69	-10.640	-34.241	4.106	1.00	0.00
ATOM	619	C3'	THY	69	-5.915	-35.563	3.673	1.00	0.00
ATOM	620	C2'	THY	69	-6.889	-34.487	4.147	1.00	0.00
ATOM	621	O3'	THY	69	-5.966	-35.829	2.285	1.00	0.00
ATOM	622	P	THY	70	-5.269	-34.858	1.203	1.00	0.00
ATOM	623	OP1	THY	70	-4.152	-34.141	1.863	1.00	0.00
ATOM	624	OP2	THY	70	-4.996	-35.662	-0.005	1.00	0.00
ATOM	625	O5'	THY	70	-6.416	-33.783	0.866	1.00	0.00
ATOM	626	C5'	THY	70	-7.536	-34.125	0.072	1.00	0.00
ATOM	627	C4'	THY	70	-8.628	-33.057	0.207	1.00	0.00
ATOM	628	O4'	THY	70	-9.013	-32.916	1.558	1.00	0.00
ATOM	629	C1'	THY	70	-9.676	-31.679	1.675	1.00	0.00
ATOM	630	N1	THY	70	-9.809	-31.284	3.100	1.00	0.00
ATOM	631	C6	THY	70	-8.729	-31.372	3.945	1.00	0.00
ATOM	632	C5	THY	70	-8.831	-31.024	5.250	1.00	0.00

141					142				
ATOM	633	C7	THY	70	-7.565	-31.155	6.066	1.00	0.00
ATOM	634	C4	THY	70	-10.077	-30.555	5.818	1.00	0.00
ATOM	635	O4	THY	70	-10.246	-30.197	6.980	1.00	0.00
ATOM	636	N3	THY	70	-11.128	-30.541	4.918	1.00	0.00
ATOM	637	C2	THY	70	-11.045	-30.834	3.566	1.00	0.00
ATOM	638	O2	THY	70	-12.018	-30.662	2.836	1.00	0.00
ATOM	639	C3'	THY	70	-8.192	-31.647	-0.221	1.00	0.00
ATOM	640	C2'	THY	70	-8.748	-30.749	0.895	1.00	0.00
ATOM	641	O3'	THY	70	-8.732	-31.350	-1.498	1.00	0.00
ATOM	642	P	ADE	71	-8.328	-30.017	-2.316	1.00	0.00
ATOM	643	OP1	ADE	71	-8.704	-30.209	-3.733	1.00	0.00
ATOM	644	OP2	ADE	71	-6.932	-29.662	-1.969	1.00	0.00
ATOM	645	O5'	ADE	71	-9.285	-28.890	-1.684	1.00	0.00
ATOM	646	C5'	ADE	71	-10.658	-28.793	-2.014	1.00	0.00
ATOM	647	C4'	ADE	71	-11.331	-27.707	-1.159	1.00	0.00
ATOM	648	O4'	ADE	71	-11.528	-28.171	0.181	1.00	0.00
ATOM	649	C1'	ADE	71	-11.237	-27.101	1.052	1.00	0.00
ATOM	650	N9	ADE	71	-10.923	-27.449	2.459	1.00	0.00
ATOM	651	C8	ADE	71	-9.740	-27.935	2.954	1.00	0.00
ATOM	652	N7	ADE	71	-9.616	-27.886	4.247	1.00	0.00
ATOM	653	C5	ADE	71	-10.824	-27.338	4.652	1.00	0.00
ATOM	654	C6	ADE	71	-11.327	-26.999	5.919	1.00	0.00
ATOM	655	N6	ADE	71	-10.632	-27.220	7.036	1.00	0.00
ATOM	656	N1	ADE	71	-12.534	-26.412	5.998	1.00	0.00
ATOM	657	C2	ADE	71	-13.214	-26.189	4.875	1.00	0.00
ATOM	658	N3	ADE	71	-12.854	-26.470	3.624	1.00	0.00
ATOM	659	C4	ADE	71	-11.630	-27.060	3.577	1.00	0.00
ATOM	660	C3'	ADE	71	-10.460	-26.435	-1.056	1.00	0.00
ATOM	661	C2'	ADE	71	-9.970	-26.618	0.368	1.00	0.00
ATOM	662	O3'	ADE	71	-11.246	-25.268	-1.167	1.00	0.00
ATOM	663	P	GUA	72	-10.633	-23.771	-1.250	1.00	0.00
ATOM	664	OP1	GUA	72	-10.480	-23.379	-2.666	1.00	0.00
ATOM	665	OP2	GUA	72	-9.492	-23.612	-0.306	1.00	0.00
ATOM	666	O5'	GUA	72	-11.856	-22.959	-0.609	1.00	0.00
ATOM	667	C5'	GUA	72	-13.188	-23.095	-1.073	1.00	0.00
ATOM	668	C4'	GUA	72	-14.151	-22.633	0.026	1.00	0.00
ATOM	669	O4'	GUA	72	-13.913	-23.371	1.222	1.00	0.00
ATOM	670	C1'	GUA	72	-13.564	-22.508	2.292	1.00	0.00
ATOM	671	N9	GUA	72	-12.488	-23.106	3.119	1.00	0.00
ATOM	672	C8	GUA	72	-11.322	-23.681	2.689	1.00	0.00
ATOM	673	N7	GUA	72	-10.479	-23.993	3.634	1.00	0.00
ATOM	674	C5	GUA	72	-11.160	-23.631	4.795	1.00	0.00
ATOM	675	C6	GUA	72	-10.773	-23.753	6.163	1.00	0.00
ATOM	676	O6	GUA	72	-9.720	-24.202	6.609	1.00	0.00
ATOM	677	N1	GUA	72	-11.751	-23.298	7.040	1.00	0.00
ATOM	678	C2	GUA	72	-12.965	-22.771	6.647	1.00	0.00
ATOM	679	N2	GUA	72	-13.772	-22.287	7.593	1.00	0.00
ATOM	680	N3	GUA	72	-13.328	-22.648	5.363	1.00	0.00
ATOM	681	C4	GUA	72	-12.392	-23.100	4.490	1.00	0.00
ATOM	682	C3'	GUA	72	-13.951	-21.159	0.380	1.00	0.00

143

144

ATOM	683	C2'	GUA	72	-13.029	-21.267	1.591	1.00	0.00
ATOM	684	O3'	GUA	72	-15.208	-20.583	0.687	1.00	0.00
ATOM	685	P	GUA	73	-15.400	-18.991	0.871	1.00	0.00
ATOM	686	OP1	GUA	73	-16.828	-18.671	0.657	1.00	0.00
ATOM	687	OP2	GUA	73	-14.365	-18.296	0.075	1.00	0.00
ATOM	688	O5'	GUA	73	-15.062	-18.779	2.427	1.00	0.00
ATOM	689	C5'	GUA	73	-15.974	-19.181	3.428	1.00	0.00
ATOM	690	C4'	GUA	73	-15.380	-18.946	4.818	1.00	0.00
ATOM	691	O4'	GUA	73	-14.226	-19.747	5.007	1.00	0.00
ATOM	692	C1'	GUA	73	-13.340	-19.028	5.830	1.00	0.00
ATOM	693	N9	GUA	73	-11.979	-19.604	5.793	1.00	0.00
ATOM	694	C8	GUA	73	-11.191	-19.876	4.707	1.00	0.00
ATOM	695	N7	GUA	73	-10.043	-20.427	4.994	1.00	0.00
ATOM	696	C5	GUA	73	-10.069	-20.523	6.385	1.00	0.00
ATOM	697	C6	GUA	73	-9.107	-21.057	7.295	1.00	0.00
ATOM	698	O6	GUA	73	-8.002	-21.524	7.032	1.00	0.00
ATOM	699	N1	GUA	73	-9.545	-21.027	8.617	1.00	0.00
ATOM	700	C2	GUA	73	-10.764	-20.522	9.023	1.00	0.00
ATOM	701	N2	GUA	73	-11.039	-20.500	10.328	1.00	0.00
ATOM	702	N3	GUA	73	-11.659	-20.003	8.176	1.00	0.00
ATOM	703	C4	GUA	73	-11.255	-20.033	6.879	1.00	0.00
ATOM	704	C3'	GUA	73	-14.928	-17.493	5.059	1.00	0.00
ATOM	705	C2'	GUA	73	-13.410	-17.658	5.169	1.00	0.00
ATOM	706	O3'	GUA	73	-15.510	-17.043	6.269	1.00	0.00
ATOM	707	P	GUA	74	-15.378	-15.523	6.800	1.00	0.00
ATOM	708	OP1	GUA	74	-16.738	-14.961	6.953	1.00	0.00
ATOM	709	OP2	GUA	74	-14.372	-14.806	5.986	1.00	0.00
ATOM	710	O5'	GUA	74	-14.756	-15.758	8.264	1.00	0.00
ATOM	711	C5'	GUA	74	-15.502	-16.404	9.279	1.00	0.00
ATOM	712	C4'	GUA	74	-14.657	-16.574	10.546	1.00	0.00
ATOM	713	O4'	GUA	74	-13.494	-17.326	10.234	1.00	0.00
ATOM	714	C1'	GUA	74	-12.340	-16.639	10.670	1.00	0.00
ATOM	715	N9	GUA	74	-11.207	-16.933	9.767	1.00	0.00
ATOM	716	C8	GUA	74	-11.129	-16.749	8.409	1.00	0.00
ATOM	717	N7	GUA	74	-9.998	-17.124	7.880	1.00	0.00
ATOM	718	C5	GUA	74	-9.275	-17.611	8.963	1.00	0.00
ATOM	719	C6	GUA	74	-7.978	-18.201	9.009	1.00	0.00
ATOM	720	O6	GUA	74	-7.199	-18.378	8.076	1.00	0.00
ATOM	721	N1	GUA	74	-7.624	-18.616	10.289	1.00	0.00
ATOM	722	C2	GUA	74	-8.428	-18.474	11.403	1.00	0.00
ATOM	723	N2	GUA	74	-7.951	-18.882	12.580	1.00	0.00
ATOM	724	N3	GUA	74	-9.637	-17.903	11.366	1.00	0.00
ATOM	725	C4	GUA	74	-10.008	-17.503	10.121	1.00	0.00
ATOM	726	C3'	GUA	74	-14.170	-15.241	11.133	1.00	0.00
ATOM	727	C2'	GUA	74	-12.743	-15.171	10.596	1.00	0.00
ATOM	728	O3'	GUA	74	-14.222	-15.325	12.548	1.00	0.00
ATOM	729	P	THY	75	-13.809	-14.100	13.515	1.00	0.00
ATOM	730	OP1	THY	75	-13.538	-12.903	12.688	1.00	0.00
ATOM	731	OP2	THY	75	-14.792	-14.026	14.618	1.00	0.00
ATOM	732	O5'	THY	75	-12.409	-14.619	14.119	1.00	0.00

(74)

特開2003-135087

145

146

ATOM	733	C5'	THY	75	-12.366	-15.747	14.971	1.00	0.00
ATOM	734	C4'	THY	75	-10.922	-16.066	15.364	1.00	0.00
ATOM	735	O4'	THY	75	-10.152	-16.283	14.193	1.00	0.00
ATOM	736	C1'	THY	75	-8.897	-15.652	14.333	1.00	0.00
ATOM	737	N1	THY	75	-8.318	-15.369	12.991	1.00	0.00
ATOM	738	C6	THY	75	-9.048	-14.679	12.048	1.00	0.00
ATOM	739	C5	THY	75	-8.571	-14.487	10.792	1.00	0.00
ATOM	740	C7	THY	75	-9.432	-13.669	9.845	1.00	0.00
ATOM	741	C4	THY	75	-7.299	-15.039	10.375	1.00	0.00
ATOM	742	O4	THY	75	-6.831	-15.001	9.240	1.00	0.00
ATOM	743	N3	THY	75	-6.607	-15.672	11.390	1.00	0.00
ATOM	744	C2	THY	75	-7.047	-15.858	12.690	1.00	0.00
ATOM	745	O2	THY	75	-6.328	-16.432	13.503	1.00	0.00
ATOM	746	C3'	THY	75	-10.239	-14.922	16.134	1.00	0.00
ATOM	747	C2'	THY	75	-9.263	-14.379	15.091	1.00	0.00
ATOM	748	O3'	THY	75	-9.596	-15.468	17.272	1.00	0.00
ATOM	749	P	THY	76	-8.767	-14.567	18.326	1.00	0.00
ATOM	750	OP1	THY	76	-9.062	-15.054	19.692	1.00	0.00
ATOM	751	OP2	THY	76	-8.952	-13.137	17.995	1.00	0.00
ATOM	752	O5'	THY	76	-7.253	-14.970	17.965	1.00	0.00
ATOM	753	C5'	THY	76	-6.786	-16.288	18.181	1.00	0.00
ATOM	754	C4'	THY	76	-5.337	-16.410	17.709	1.00	0.00
ATOM	755	O4'	THY	76	-5.263	-16.051	16.340	1.00	0.00
ATOM	756	C1'	THY	76	-4.126	-15.250	16.106	1.00	0.00
ATOM	757	N1	THY	76	-4.359	-14.418	14.888	1.00	0.00
ATOM	758	C6	THY	76	-5.445	-13.574	14.826	1.00	0.00
ATOM	759	C5	THY	76	-5.765	-12.917	13.682	1.00	0.00
ATOM	760	C7	THY	76	-6.957	-11.979	13.736	1.00	0.00
ATOM	761	C4	THY	76	-5.007	-13.105	12.464	1.00	0.00
ATOM	762	O4	THY	76	-5.269	-12.600	11.375	1.00	0.00
ATOM	763	N3	THY	76	-3.917	-13.947	12.604	1.00	0.00
ATOM	764	C2	THY	76	-3.533	-14.593	13.774	1.00	0.00
ATOM	765	O2	THY	76	-2.504	-15.269	13.792	1.00	0.00
ATOM	766	C3'	THY	76	-4.388	-15.470	18.467	1.00	0.00
ATOM	767	C2'	THY	76	-4.035	-14.434	17.398	1.00	0.00
ATOM	768	O3'	THY	76	-3.276	-16.217	18.932	1.00	0.00
ATOM	769	P	ADE	77	-2.053	-15.548	19.740	1.00	0.00
ATOM	770	OP1	ADE	77	-1.463	-16.547	20.656	1.00	0.00
ATOM	771	OP2	ADE	77	-2.454	-14.221	20.264	1.00	0.00
ATOM	772	O5'	ADE	77	-1.007	-15.285	18.560	1.00	0.00
ATOM	773	C5'	ADE	77	-0.320	-16.345	17.925	1.00	0.00
ATOM	774	C4'	ADE	77	0.654	-15.732	16.921	1.00	0.00
ATOM	775	O4'	ADE	77	-0.078	-15.057	15.915	1.00	0.00
ATOM	776	C1'	ADE	77	0.591	-13.870	15.556	1.00	0.00
ATOM	777	N9	ADE	77	-0.377	-12.948	14.914	1.00	0.00
ATOM	778	C8	ADE	77	-1.494	-12.366	15.463	1.00	0.00
ATOM	779	N7	ADE	77	-2.244	-11.723	14.615	1.00	0.00
ATOM	780	C5	ADE	77	-1.556	-11.856	13.417	1.00	0.00
ATOM	781	C6	ADE	77	-1.815	-11.395	12.115	1.00	0.00
ATOM	782	N6	ADE	77	-2.903	-10.684	11.811	1.00	0.00

(75)

特開2003-135087

147

148

ATOM	783	N1	ADE	77	-0.913	-11.654	11.153	1.00	0.00
ATOM	784	C2	ADE	77	0.176	-12.358	11.456	1.00	0.00
ATOM	785	N3	ADE	77	0.508	-12.898	12.626	1.00	0.00
ATOM	786	C4	ADE	77	-0.403	-12.583	13.589	1.00	0.00
ATOM	787	C3'	ADE	77	1.530	-14.665	17.592	1.00	0.00
ATOM	788	C2'	ADE	77	1.078	-13.370	16.908	1.00	0.00
ATOM	789	O3'	ADE	77	2.896	-14.974	17.424	1.00	0.00
ATOM	790	P	GUA	78	4.053	-14.088	18.113	1.00	0.00
ATOM	791	OP1	GUA	78	5.205	-14.971	18.390	1.00	0.00
ATOM	792	OP2	GUA	78	3.452	-13.281	19.205	1.00	0.00
ATOM	793	O5'	GUA	78	4.424	-13.109	16.895	1.00	0.00
ATOM	794	C5'	GUA	78	5.023	-13.624	15.723	1.00	0.00
ATOM	795	C4'	GUA	78	5.043	-12.581	14.609	1.00	0.00
ATOM	796	O4'	GUA	78	3.719	-12.193	14.267	1.00	0.00
ATOM	797	C1'	GUA	78	3.745	-10.818	13.958	1.00	0.00
ATOM	798	N9	GUA	78	2.389	-10.225	13.968	1.00	0.00
ATOM	799	C8	GUA	78	1.530	-10.058	15.025	1.00	0.00
ATOM	800	N7	GUA	78	0.411	-9.464	14.717	1.00	0.00
ATOM	801	C5	GUA	78	0.531	-9.214	13.353	1.00	0.00
ATOM	802	C6	GUA	78	-0.374	-8.581	12.447	1.00	0.00
ATOM	803	O6	GUA	78	-1.475	-8.092	12.688	1.00	0.00
ATOM	804	N1	GUA	78	0.105	-8.564	11.142	1.00	0.00
ATOM	805	C2	GUA	78	1.315	-9.093	10.747	1.00	0.00
ATOM	806	N2	GUA	78	1.647	-8.978	9.461	1.00	0.00
ATOM	807	N3	GUA	78	2.173	-9.676	11.595	1.00	0.00
ATOM	808	C4	GUA	78	1.726	-9.703	12.881	1.00	0.00
ATOM	809	C3'	GUA	78	5.783	-11.291	15.002	1.00	0.00
ATOM	810	C2'	GUA	78	4.624	-10.296	15.089	1.00	0.00
ATOM	811	O3'	GUA	78	6.690	-10.973	13.962	1.00	0.00
ATOM	812	P	GUA	79	7.776	-9.784	14.078	1.00	0.00
ATOM	813	OP1	GUA	79	9.125	-10.379	13.961	1.00	0.00
ATOM	814	OP2	GUA	79	7.441	-8.931	15.239	1.00	0.00
ATOM	815	O5'	GUA	79	7.463	-8.958	12.734	1.00	0.00
ATOM	816	C5'	GUA	79	7.743	-9.509	11.461	1.00	0.00
ATOM	817	C4'	GUA	79	7.183	-8.619	10.347	1.00	0.00
ATOM	818	O4'	GUA	79	5.785	-8.462	10.536	1.00	0.00
ATOM	819	C1'	GUA	79	5.443	-7.091	10.524	1.00	0.00
ATOM	820	N9	GUA	79	4.287	-6.854	11.418	1.00	0.00
ATOM	821	C8	GUA	79	4.161	-7.168	12.748	1.00	0.00
ATOM	822	N7	GUA	79	3.021	-6.822	13.276	1.00	0.00
ATOM	823	C5	GUA	79	2.332	-6.239	12.219	1.00	0.00
ATOM	824	C6	GUA	79	1.028	-5.663	12.177	1.00	0.00
ATOM	825	O6	GUA	79	0.222	-5.545	13.097	1.00	0.00
ATOM	826	N1	GUA	79	0.689	-5.200	10.911	1.00	0.00
ATOM	827	C2	GUA	79	1.517	-5.263	9.810	1.00	0.00
ATOM	828	N2	GUA	79	1.095	-4.697	8.678	1.00	0.00
ATOM	829	N3	GUA	79	2.745	-5.799	9.846	1.00	0.00
ATOM	830	C4	GUA	79	3.093	-6.268	11.074	1.00	0.00
ATOM	831	C3'	GUA	79	7.789	-7.208	10.336	1.00	0.00
ATOM	832	C2'	GUA	79	6.701	-6.400	11.041	1.00	0.00

(76)

特開2003-135087

149

150

ATOM	833	O3'	GUA	79	7.992	-6.815	8.988	1.00	0.00
ATOM	834	P	GUA	80	8.715	-5.427	8.586	1.00	0.00
ATOM	835	OP1	GUA	80	9.560	-4.982	9.715	1.00	0.00
ATOM	836	OP2	GUA	80	9.312	-5.593	7.242	1.00	0.00
ATOM	837	O5'	GUA	80	7.470	-4.414	8.458	1.00	0.00
ATOM	838	C5'	GUA	80	6.569	-4.508	7.373	1.00	0.00
ATOM	839	C4'	GUA	80	5.438	-3.489	7.534	1.00	0.00
ATOM	840	O4'	GUA	80	4.697	-3.763	8.706	1.00	0.00
ATOM	841	C1'	GUA	80	4.211	-2.539	9.202	1.00	0.00
ATOM	842	N9	GUA	80	3.727	-2.682	10.592	1.00	0.00
ATOM	843	C8	GUA	80	4.390	-3.187	11.681	1.00	0.00
ATOM	844	N7	GUA	80	3.679	-3.216	12.773	1.00	0.00
ATOM	845	C5	GUA	80	2.446	-2.702	12.383	1.00	0.00
ATOM	846	C6	GUA	80	1.242	-2.524	13.129	1.00	0.00
ATOM	847	O6	GUA	80	1.041	-2.764	14.317	1.00	0.00
ATOM	848	N1	GUA	80	0.204	-2.025	12.351	1.00	0.00
ATOM	849	C2	GUA	80	0.309	-1.712	11.012	1.00	0.00
ATOM	850	N2	GUA	80	-0.769	-1.216	10.402	1.00	0.00
ATOM	851	N3	GUA	80	1.440	-1.868	10.310	1.00	0.00
ATOM	852	C4	GUA	80	2.466	-2.374	11.048	1.00	0.00
ATOM	853	C3'	GUA	80	5.931	-2.039	7.695	1.00	0.00
ATOM	854	C2'	GUA	80	5.465	-1.677	9.102	1.00	0.00
ATOM	855	O3'	GUA	80	5.293	-1.196	6.757	1.00	0.00
ATOM	856	O5'	CYT	81	-8.894	-0.011	15.330	1.00	0.00
ATOM	857	C5'	CYT	81	-8.642	0.942	14.317	1.00	0.00
ATOM	858	C4'	CYT	81	-7.565	0.453	13.343	1.00	0.00
ATOM	859	O4'	CYT	81	-6.377	0.096	14.018	1.00	0.00
ATOM	860	C1'	CYT	81	-5.598	-0.642	13.103	1.00	0.00
ATOM	861	N1	CYT	81	-4.515	-1.402	13.775	1.00	0.00
ATOM	862	C6	CYT	81	-4.776	-2.104	14.925	1.00	0.00
ATOM	863	C5	CYT	81	-3.819	-2.836	15.539	1.00	0.00
ATOM	864	C4	CYT	81	-2.513	-2.833	14.943	1.00	0.00
ATOM	865	N4	CYT	81	-1.515	-3.517	15.504	1.00	0.00
ATOM	866	N3	CYT	81	-2.271	-2.164	13.810	1.00	0.00
ATOM	867	C2	CYT	81	-3.252	-1.454	13.187	1.00	0.00
ATOM	868	O2	CYT	81	-3.010	-0.886	12.124	1.00	0.00
ATOM	869	C3'	CYT	81	-7.943	-0.809	12.553	1.00	0.00
ATOM	870	C2'	CYT	81	-6.626	-1.586	12.496	1.00	0.00
ATOM	871	O3'	CYT	81	-8.440	-0.447	11.276	1.00	0.00
ATOM	872	P	CYT	82	-8.906	-1.545	10.183	1.00	0.00
ATOM	873	OP1	CYT	82	-9.945	-0.928	9.330	1.00	0.00
ATOM	874	OP2	CYT	82	-9.193	-2.810	10.894	1.00	0.00
ATOM	875	O5'	CYT	82	-7.579	-1.764	9.289	1.00	0.00
ATOM	876	C5'	CYT	82	-7.074	-0.738	8.453	1.00	0.00
ATOM	877	C4'	CYT	82	-5.797	-1.194	7.733	1.00	0.00
ATOM	878	O4'	CYT	82	-4.812	-1.553	8.681	1.00	0.00
ATOM	879	C1'	CYT	82	-4.140	-2.730	8.280	1.00	0.00
ATOM	880	N1	CYT	82	-3.740	-3.462	9.505	1.00	0.00
ATOM	881	C6	CYT	82	-4.685	-3.705	10.462	1.00	0.00
ATOM	882	C5	CYT	82	-4.388	-4.320	11.622	1.00	0.00

(77)

特開2003-135087

151					152				
ATOM	883	C4	CYT	82	-3.021	-4.708	11.815	1.00	0.00
ATOM	884	N4	CYT	82	-2.662	-5.342	12.930	1.00	0.00
ATOM	885	N3	CYT	82	-2.099	-4.493	10.864	1.00	0.00
ATOM	886	C2	CYT	82	-2.425	-3.883	9.687	1.00	0.00
ATOM	887	O2	CYT	82	-1.573	-3.730	8.816	1.00	0.00
ATOM	888	C3'	CYT	82	-6.014	-2.424	6.838	1.00	0.00
ATOM	889	C2'	CYT	82	-5.213	-3.517	7.530	1.00	0.00
ATOM	890	O3'	CYT	82	-5.544	-2.132	5.528	1.00	0.00
ATOM	891	P	CYT	83	-5.737	-3.143	4.280	1.00	0.00
ATOM	892	OP1	CYT	83	-6.881	-4.033	4.575	1.00	0.00
ATOM	893	OP2	CYT	83	-5.730	-2.341	3.037	1.00	0.00
ATOM	894	O5'	CYT	83	-4.393	-4.032	4.313	1.00	0.00
ATOM	895	C5'	CYT	83	-3.158	-3.536	3.823	1.00	0.00
ATOM	896	C4'	CYT	83	-2.036	-4.525	4.162	1.00	0.00
ATOM	897	O4'	CYT	83	-2.061	-4.764	5.554	1.00	0.00
ATOM	898	C1'	CYT	83	-1.443	-5.999	5.835	1.00	0.00
ATOM	899	N1	CYT	83	-2.037	-6.576	7.069	1.00	0.00
ATOM	900	C6	CYT	83	-3.392	-6.513	7.253	1.00	0.00
ATOM	901	C5	CYT	83	-3.964	-6.841	8.434	1.00	0.00
ATOM	902	C4	CYT	83	-3.085	-7.290	9.474	1.00	0.00
ATOM	903	N4	CYT	83	-3.569	-7.602	10.678	1.00	0.00
ATOM	904	N3	CYT	83	-1.772	-7.453	9.253	1.00	0.00
ATOM	905	C2	CYT	83	-1.216	-7.124	8.052	1.00	0.00
ATOM	906	O2	CYT	83	-0.023	-7.334	7.848	1.00	0.00
ATOM	907	C3'	CYT	83	-2.220	-5.904	3.515	1.00	0.00
ATOM	908	C2'	CYT	83	-1.777	-6.862	4.622	1.00	0.00
ATOM	909	O3'	CYT	83	-1.416	-6.046	2.353	1.00	0.00
ATOM	910	P	THY	84	-1.585	-7.293	1.328	1.00	0.00
ATOM	911	OP1	THY	84	-0.711	-7.043	0.161	1.00	0.00
ATOM	912	OP2	THY	84	-3.031	-7.524	1.118	1.00	0.00
ATOM	913	O5'	THY	84	-0.993	-8.570	2.122	1.00	0.00
ATOM	914	C5'	THY	84	0.399	-8.831	2.181	1.00	0.00
ATOM	915	C4'	THY	84	0.702	-9.926	3.213	1.00	0.00
ATOM	916	O4'	THY	84	0.161	-9.564	4.465	1.00	0.00
ATOM	917	C1'	THY	84	0.136	-10.700	5.294	1.00	0.00
ATOM	918	N1	THY	84	-0.950	-10.591	6.302	1.00	0.00
ATOM	919	C6	THY	84	-2.212	-10.189	5.925	1.00	0.00
ATOM	920	C5	THY	84	-3.219	-10.102	6.830	1.00	0.00
ATOM	921	C7	THY	84	-4.570	-9.667	6.293	1.00	0.00
ATOM	922	C4	THY	84	-3.011	-10.423	8.228	1.00	0.00
ATOM	923	O4	THY	84	-3.855	-10.340	9.116	1.00	0.00
ATOM	924	N3	THY	84	-1.728	-10.859	8.517	1.00	0.00
ATOM	925	C2	THY	84	-0.686	-10.984	7.614	1.00	0.00
ATOM	926	O2	THY	84	0.396	-11.436	7.978	1.00	0.00
ATOM	927	C3'	THY	84	0.027	-11.270	2.925	1.00	0.00
ATOM	928	C2'	THY	84	-0.117	-11.857	4.330	1.00	0.00
ATOM	929	O3'	THY	84	0.823	-12.086	2.077	1.00	0.00
ATOM	930	P	ADE	85	0.361	-13.570	1.628	1.00	0.00
ATOM	931	OP1	ADE	85	-1.112	-13.561	1.458	1.00	0.00
ATOM	932	OP2	ADE	85	1.212	-13.998	0.496	1.00	0.00

(78)

特開2003-135087

153

154

ATOM	933	05'	ADE	85	0.724	-14.508	2.902	1.00	0.00
ATOM	934	C5'	ADE	85	2.075	-14.758	3.262	1.00	0.00
ATOM	935	C4'	ADE	85	2.242	-15.383	4.660	1.00	0.00
ATOM	936	04'	ADE	85	1.429	-14.713	5.613	1.00	0.00
ATOM	937	C1'	ADE	85	0.591	-15.638	6.278	1.00	0.00
ATOM	938	N9	ADE	85	-0.726	-15.023	6.569	1.00	0.00
ATOM	939	C8	ADE	85	-1.674	-14.571	5.685	1.00	0.00
ATOM	940	N7	ADE	85	-2.734	-14.054	6.245	1.00	0.00
ATOM	941	C5	ADE	85	-2.473	-14.179	7.603	1.00	0.00
ATOM	942	C6	ADE	85	-3.211	-13.838	8.754	1.00	0.00
ATOM	943	N6	ADE	85	-4.422	-13.283	8.693	1.00	0.00
ATOM	944	N1	ADE	85	-2.679	-14.096	9.961	1.00	0.00
ATOM	945	C2	ADE	85	-1.477	-14.654	10.017	1.00	0.00
ATOM	946	N3	ADE	85	-0.681	-15.027	9.022	1.00	0.00
ATOM	947	C4	ADE	85	-1.248	-14.760	7.815	1.00	0.00
ATOM	948	C3'	ADE	85	1.925	-16.877	4.802	1.00	0.00
ATOM	949	C2'	ADE	85	0.484	-16.785	5.277	1.00	0.00
ATOM	950	03'	ADE	85	2.784	-17.418	5.797	1.00	0.00
ATOM	951	P	ADE	86	2.888	-19.000	6.105	1.00	0.00
ATOM	952	OP1	ADE	86	4.290	-19.420	5.873	1.00	0.00
ATOM	953	OP2	ADE	86	1.799	-19.696	5.392	1.00	0.00
ATOM	954	05'	ADE	86	2.575	-19.103	7.684	1.00	0.00
ATOM	955	C5'	ADE	86	3.471	-18.610	8.660	1.00	0.00
ATOM	956	C4'	ADE	86	2.904	-18.767	10.079	1.00	0.00
ATOM	957	04'	ADE	86	1.680	-18.058	10.201	1.00	0.00
ATOM	958	C1'	ADE	86	0.605	-18.942	10.464	1.00	0.00
ATOM	959	N9	ADE	86	-0.586	-18.528	9.687	1.00	0.00
ATOM	960	C8	ADE	86	-0.751	-18.502	8.325	1.00	0.00
ATOM	961	N7	ADE	86	-1.887	-18.002	7.927	1.00	0.00
ATOM	962	C5	ADE	86	-2.535	-17.687	9.113	1.00	0.00
ATOM	963	C6	ADE	86	-3.795	-17.122	9.395	1.00	0.00
ATOM	964	N6	ADE	86	-4.646	-16.743	8.440	1.00	0.00
ATOM	965	N1	ADE	86	-4.150	-16.962	10.682	1.00	0.00
ATOM	966	C2	ADE	86	-3.303	-17.331	11.637	1.00	0.00
ATOM	967	N3	ADE	86	-2.081	-17.834	11.507	1.00	0.00
ATOM	968	C4	ADE	86	-1.752	-18.002	10.196	1.00	0.00
ATOM	969	C3'	ADE	86	2.597	-20.210	10.497	1.00	0.00
ATOM	970	C2'	ADE	86	1.127	-20.328	10.087	1.00	0.00
ATOM	971	03'	ADE	86	2.816	-20.348	11.899	1.00	0.00
ATOM	972	P	CYT	87	2.658	-21.768	12.654	1.00	0.00
ATOM	973	OP1	CYT	87	3.345	-21.709	13.963	1.00	0.00
ATOM	974	OP2	CYT	87	2.998	-22.847	11.705	1.00	0.00
ATOM	975	05'	CYT	87	1.092	-21.818	12.972	1.00	0.00
ATOM	976	C5'	CYT	87	0.556	-20.998	13.987	1.00	0.00
ATOM	977	C4'	CYT	87	-0.967	-21.025	13.975	1.00	0.00
ATOM	978	04'	CYT	87	-1.484	-20.567	12.749	1.00	0.00
ATOM	979	C1'	CYT	87	-2.840	-20.952	12.723	1.00	0.00
ATOM	980	N1	CYT	87	-3.404	-20.828	11.356	1.00	0.00
ATOM	981	C6	CYT	87	-2.668	-21.210	10.262	1.00	0.00
ATOM	982	C5	CYT	87	-3.114	-20.996	9.002	1.00	0.00

(79)

特開2003-135087

155					156				
ATOM	983	C4	CYT	87	-4.391	-20.355	8.863	1.00	0.00
ATOM	984	N4	CYT	87	-4.873	-20.052	7.661	1.00	0.00
ATOM	985	N3	CYT	87	-5.116	-20.016	9.936	1.00	0.00
ATOM	986	C2	CYT	87	-4.662	-20.250	11.196	1.00	0.00
ATOM	987	O2	CYT	87	-5.360	-19.945	12.158	1.00	0.00
ATOM	988	C3'	CYT	87	-1.566	-22.426	14.146	1.00	0.00
ATOM	989	C2'	CYT	87	-2.759	-22.400	13.181	1.00	0.00
ATOM	990	O3'	CYT	87	-1.903	-22.599	15.510	1.00	0.00
ATOM	991	P	CYT	88	-2.573	-23.954	16.078	1.00	0.00
ATOM	992	OP1	CYT	88	-2.168	-25.075	15.200	1.00	0.00
ATOM	993	OP2	CYT	88	-2.301	-24.019	17.530	1.00	0.00
ATOM	994	O5'	CYT	88	-4.146	-23.673	15.859	1.00	0.00
ATOM	995	C5'	CYT	88	-4.809	-22.623	16.544	1.00	0.00
ATOM	996	C4'	CYT	88	-6.182	-22.358	15.913	1.00	0.00
ATOM	997	O4'	CYT	88	-6.044	-22.074	14.536	1.00	0.00
ATOM	998	C1'	CYT	88	-7.241	-22.419	13.875	1.00	0.00
ATOM	999	N1	CYT	88	-6.961	-22.669	12.440	1.00	0.00
ATOM	1000	C6	CYT	88	-5.862	-23.404	12.086	1.00	0.00
ATOM	1001	C5	CYT	88	-5.501	-23.575	10.798	1.00	0.00
ATOM	1002	C4	CYT	88	-6.339	-22.959	9.807	1.00	0.00
ATOM	1003	N4	CYT	88	-6.014	-23.023	8.516	1.00	0.00
ATOM	1004	N3	CYT	88	-7.462	-22.313	10.154	1.00	0.00
ATOM	1005	C2	CYT	88	-7.814	-22.168	11.462	1.00	0.00
ATOM	1006	O2	CYT	88	-8.872	-21.621	11.757	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.140	-23.554	15.995	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.629	-23.724	14.558	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.177	-23.243	16.913	1.00	0.00
ATOM	1010	P	CYT	89	-9.418	-24.233	17.209	1.00	0.00
ATOM	1011	OP1	CYT	89	-9.021	-25.608	16.828	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.907	-23.962	18.579	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.537	-23.727	16.161	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.127	-22.442	16.270	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.161	-22.223	15.158	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.542	-22.326	13.891	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.413	-22.943	12.965	1.00	0.00
ATOM	1018	N1	CYT	89	-11.585	-23.657	11.962	1.00	0.00
ATOM	1019	C6	CYT	89	-10.530	-24.415	12.395	1.00	0.00
ATOM	1020	C5	CYT	89	-9.647	-24.964	11.539	1.00	0.00
ATOM	1021	C4	CYT	89	-9.873	-24.727	10.141	1.00	0.00
ATOM	1022	N4	CYT	89	-9.040	-25.233	9.232	1.00	0.00
ATOM	1023	N3	CYT	89	-10.941	-24.038	9.715	1.00	0.00
ATOM	1024	C2	CYT	89	-11.831	-23.501	10.601	1.00	0.00
ATOM	1025	O2	CYT	89	-12.824	-22.908	10.189	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.286	-23.268	15.180	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.180	-23.945	13.818	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.529	-22.610	15.390	1.00	0.00
ATOM	1029	P	THY	90	-15.939	-23.395	15.516	1.00	0.00
ATOM	1030	OP1	THY	90	-15.673	-24.765	16.009	1.00	0.00
ATOM	1031	OP2	THY	90	-16.887	-22.524	16.243	1.00	0.00
ATOM	1032	O5'	THY	90	-16.433	-23.501	13.984	1.00	0.00

157

158

ATOM	1033	C5'	THY	90	-16.775	-22.346	13.238	1.00	0.00
ATOM	1034	C4'	THY	90	-16.998	-22.716	11.768	1.00	0.00
ATOM	1035	O4'	THY	90	-15.832	-23.324	11.249	1.00	0.00
ATOM	1036	C1'	THY	90	-16.200	-24.264	10.266	1.00	0.00
ATOM	1037	N1	THY	90	-15.080	-25.224	10.087	1.00	0.00
ATOM	1038	C6	THY	90	-14.546	-25.858	11.182	1.00	0.00
ATOM	1039	C5	THY	90	-13.435	-26.622	11.083	1.00	0.00
ATOM	1040	C7	THY	90	-12.957	-27.299	12.354	1.00	0.00
ATOM	1041	C4	THY	90	-12.746	-26.787	9.821	1.00	0.00
ATOM	1042	O4	THY	90	-11.703	-27.415	9.659	1.00	0.00
ATOM	1043	N3	THY	90	-13.365	-26.156	8.754	1.00	0.00
ATOM	1044	C2	THY	90	-14.534	-25.410	8.817	1.00	0.00
ATOM	1045	O2	THY	90	-15.047	-24.974	7.790	1.00	0.00
ATOM	1046	C3'	THY	90	-18.136	-23.727	11.552	1.00	0.00
ATOM	1047	C2'	THY	90	-17.432	-24.915	10.891	1.00	0.00
ATOM	1048	O3'	THY	90	-19.125	-23.135	10.723	1.00	0.00
ATOM	1049	P	ADE	91	-20.563	-23.824	10.460	1.00	0.00
ATOM	1050	OP1	ADE	91	-20.926	-24.628	11.647	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.489	-22.778	9.972	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.264	-24.833	9.243	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.142	-24.363	7.915	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.601	-25.469	7.005	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.306	-25.866	7.397	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.057	-27.102	6.771	1.00	0.00
ATOM	1057	N9	ADE	91	-16.905	-27.767	7.405	1.00	0.00
ATOM	1058	C8	ADE	91	-16.673	-27.956	8.742	1.00	0.00
ATOM	1059	N7	ADE	91	-15.532	-28.531	9.011	1.00	0.00
ATOM	1060	C5	ADE	91	-14.979	-28.752	7.752	1.00	0.00
ATOM	1061	C6	ADE	91	-13.769	-29.325	7.318	1.00	0.00
ATOM	1062	N6	ADE	91	-12.838	-29.777	8.162	1.00	0.00
ATOM	1063	N1	ADE	91	-13.548	-29.441	5.995	1.00	0.00
ATOM	1064	C2	ADE	91	-14.468	-28.994	5.144	1.00	0.00
ATOM	1065	N3	ADE	91	-15.624	-28.406	5.423	1.00	0.00
ATOM	1066	C4	ADE	91	-15.824	-28.313	6.764	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.423	-26.768	7.019	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.347	-27.862	7.048	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.250	-26.786	5.866	1.00	0.00
ATOM	1070	P	ADE	92	-22.185	-28.041	5.466	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.520	-28.796	6.693	1.00	0.00
ATOM	1072	OP2	ADE	92	-23.268	-27.550	4.585	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.186	-28.939	4.574	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.638	-28.439	3.369	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.580	-29.401	2.823	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.527	-29.566	3.760	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.080	-30.901	3.701	1.00	0.00
ATOM	1078	N9	ADE	92	-17.335	-31.260	4.927	1.00	0.00
ATOM	1079	C8	ADE	92	-17.751	-31.168	6.232	1.00	0.00
ATOM	1080	N7	ADE	92	-16.868	-31.554	7.110	1.00	0.00
ATOM	1081	C5	ADE	92	-15.784	-31.932	6.329	1.00	0.00
ATOM	1082	C6	ADE	92	-14.512	-32.445	6.645	1.00	0.00

(81)

特開2003-135087

159

160

ATOM	1083	N6	ADE	92	-14.128	-32.667	7.904	1.00	0.00
ATOM	1084	N1	ADE	92	-13.660	-32.726	5.642	1.00	0.00
ATOM	1085	C2	ADE	92	-14.052	-32.510	4.390	1.00	0.00
ATOM	1086	N3	ADE	92	-15.219	-32.039	3.959	1.00	0.00
ATOM	1087	C4	ADE	92	-16.056	-31.760	4.995	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.127	-30.811	2.545	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.411	-31.643	3.611	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.773	-31.178	1.223	1.00	0.00
ATOM	1091	P	CYT	93	-20.277	-32.547	0.536	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.670	-32.254	-0.860	1.00	0.00
ATOM	1093	OP2	CYT	93	-21.231	-33.219	1.446	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.927	-33.418	0.508	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.883	-33.123	-0.402	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.706	-34.065	-0.141	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.290	-33.914	1.197	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.744	-35.127	1.657	1.00	0.00
ATOM	1099	N1	CYT	93	-15.866	-35.182	3.134	1.00	0.00
ATOM	1100	C6	CYT	93	-17.025	-34.767	3.741	1.00	0.00
ATOM	1101	C5	CYT	93	-17.176	-34.803	5.083	1.00	0.00
ATOM	1102	C4	CYT	93	-16.058	-35.282	5.846	1.00	0.00
ATOM	1103	N4	CYT	93	-16.081	-35.252	7.180	1.00	0.00
ATOM	1104	N3	CYT	93	-14.938	-35.708	5.247	1.00	0.00
ATOM	1105	C2	CYT	93	-14.810	-35.683	3.892	1.00	0.00
ATOM	1106	O2	CYT	93	-13.780	-36.095	3.365	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.085	-35.545	-0.289	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.637	-36.191	1.018	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.409	-36.129	-1.383	1.00	0.00

END

HEADER 000000

REMARK	0.00531	1.65811	0.02515	0.01757	2.26839	1.64291
0.00000						

REMARK	2.73851	0.24877	0.40405	1.30462	0.78106
--------	---------	---------	---------	---------	---------

REMARK	0.01102	0.00405	0.00491	0.02093	0.00966
--------	---------	---------	---------	---------	---------

REMARK	121	117	4	0	0	0
0						

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.03719	0.18357	0.03351	0.04882	0.18357	0.13545
--------	---------	---------	---------	---------	---------	---------

REMARK	4.50499	0.26025
--------	---------	---------

REMARK	2	0	2	0	0	0
0						

ATOM	1	N	GLU	1	13.789	-25.054	28.296	1.00	0.00
ATOM	2	CA	GLU	1	12.599	-25.545	29.014	1.00	0.00
ATOM	3	CB	GLU	1	12.663	-25.178	30.503	1.00	0.00
ATOM	4	CC	GLU	1	14.033	-25.423	31.146	1.00	0.00

161				162			
ATOM	5	CD	GLU	1	14.017	-24.934	32.590 1.00 0.00
ATOM	6	OE1	GLU	1	14.082	-25.800	33.487 1.00 0.00
ATOM	7	OE2	GLU	1	13.919	-23.699	32.757 1.00 0.00
ATOM	8	C	GLU	1	11.336	-24.959	28.383 1.00 0.00
ATOM	9	O	GLU	1	11.416	-24.312	27.338 1.00 0.00
ATOM	10	N	LYS	2	10.178	-25.163	29.022 1.00 0.00
ATOM	11	CA	LYS	2	8.900	-24.635	28.566 1.00 0.00
ATOM	12	CB	LYS	2	7.767	-25.508	29.130 1.00 0.00
ATOM	13	CG	LYS	2	6.403	-25.155	28.513 1.00 0.00
ATOM	14	CD	LYS	2	5.274	-26.056	29.032 1.00 0.00
ATOM	15	CE	LYS	2	4.969	-25.809	30.517 1.00 0.00
ATOM	16	NZ	LYS	2	3.790	-26.572	30.967 1.00 0.00
ATOM	17	C	LYS	2	8.812	-23.171	29.016 1.00 0.00
ATOM	18	O	LYS	2	7.999	-22.819	29.867 1.00 0.00
ATOM	19	N	HIS	3	9.675	-22.326	28.440 1.00 0.00
ATOM	20	CA	HIS	3	9.771	-20.904	28.739 1.00 0.00
ATOM	21	CB	HIS	3	10.829	-20.666	29.832 1.00 0.00
ATOM	22	CG	HIS	3	12.192	-21.276	29.584 1.00 0.00
ATOM	23	ND1	HIS	3	13.107	-21.476	30.607 1.00 0.00
ATOM	24	CE1	HIS	3	14.205	-22.030	30.065 1.00 0.00
ATOM	25	NE2	HIS	3	14.092	-22.221	28.748 1.00 0.00
ATOM	26	CD2	HIS	3	12.820	-21.738	28.452 1.00 0.00
ATOM	27	C	HIS	3	10.023	-20.117	27.451 1.00 0.00
ATOM	28	O	HIS	3	10.963	-19.328	27.365 1.00 0.00
ATOM	29	N	ARG	4	9.166	-20.342	26.450 1.00 0.00
ATOM	30	CA	ARG	4	9.199	-19.692	25.147 1.00 0.00
ATOM	31	CB	ARG	4	9.989	-20.526	24.125 1.00 0.00
ATOM	32	CG	ARG	4	11.439	-20.764	24.570 1.00 0.00
ATOM	33	CD	ARG	4	12.301	-21.337	23.439 1.00 0.00
ATOM	34	NE	ARG	4	12.492	-20.376	22.340 1.00 0.00
ATOM	35	CZ	ARG	4	13.330	-19.324	22.358 1.00 0.00
ATOM	36	NH1	ARG	4	14.063	-19.053	23.448 1.00 0.00
ATOM	37	NH2	ARG	4	13.431	-18.538	21.279 1.00 0.00
ATOM	38	C	ARG	4	7.755	-19.494	24.682 1.00 0.00
ATOM	39	O	ARG	4	6.838	-20.088	25.248 1.00 0.00
ATOM	40	N	ALA	5	7.560	-18.658	23.657 1.00 0.00
ATOM	41	CA	ALA	5	6.254	-18.347	23.093 1.00 0.00
ATOM	42	CB	ALA	5	5.765	-17.023	23.698 1.00 0.00
ATOM	43	C	ALA	5	6.347	-18.316	21.564 1.00 0.00
ATOM	44	O	ALA	5	7.204	-18.984	20.987 1.00 0.00
ATOM	45	N	ARG	6	5.468	-17.541	20.918 1.00 0.00
ATOM	46	CA	ARG	6	5.368	-17.363	19.475 1.00 0.00
ATOM	47	CB	ARG	6	6.378	-16.327	18.941 1.00 0.00
ATOM	48	CG	ARG	6	7.868	-16.544	19.226 1.00 0.00
ATOM	49	CD	ARG	6	8.675	-15.415	18.563 1.00 0.00
ATOM	50	NE	ARG	6	8.610	-15.479	17.089 1.00 0.00
ATOM	51	CZ	ARG	6	8.513	-14.448	16.226 1.00 0.00
ATOM	52	NH1	ARG	6	8.308	-13.192	16.651 1.00 0.00
ATOM	53	NH2	ARG	6	8.638	-14.693	14.914 1.00 0.00
ATOM	54	C	ARG	6	5.306	-18.690	18.708 1.00 0.00

(83)

特開2003-135087

163

164

ATOM	55	O	ARG	6	6.199	-19.023	17.931	1.00	0.00
ATOM	56	N	LYS	7	4.223	-19.449	18.938	1.00	0.00
ATOM	57	CA	LYS	7	3.977	-20.746	18.319	1.00	0.00
ATOM	58	CB	LYS	7	3.057	-21.582	19.224	1.00	0.00
ATOM	59	CG	LYS	7	3.078	-23.068	18.824	1.00	0.00
ATOM	60	CD	LYS	7	1.930	-23.853	19.474	1.00	0.00
ATOM	61	CE	LYS	7	0.709	-24.008	18.556	1.00	0.00
ATOM	62	NZ	LYS	7	0.140	-22.722	18.111	1.00	0.00
ATOM	63	C	LYS	7	3.406	-20.599	16.902	1.00	0.00
ATOM	64	O	LYS	7	2.283	-21.034	16.630	1.00	0.00
ATOM	65	N	ARG	8	4.201	-19.999	16.011	1.00	0.00
ATOM	66	CA	ARG	8	3.899	-19.780	14.603	1.00	0.00
ATOM	67	CB	ARG	8	3.498	-18.319	14.355	1.00	0.00
ATOM	68	CG	ARG	8	2.157	-17.921	14.993	1.00	0.00
ATOM	69	CD	ARG	8	0.975	-18.656	14.358	1.00	0.00
ATOM	70	NE	ARG	8	-0.311	-17.975	14.573	1.00	0.00
ATOM	71	CZ	ARG	8	-0.746	-16.889	13.910	1.00	0.00
ATOM	72	NH1	ARG	8	-1.972	-16.420	14.169	1.00	0.00
ATOM	73	NH2	ARG	8	0.041	-16.271	13.017	1.00	0.00
ATOM	74	C	ARG	8	5.170	-20.155	13.837	1.00	0.00
ATOM	75	O	ARG	8	6.152	-19.415	13.862	1.00	0.00
ATOM	76	N	GLN	9	5.159	-21.317	13.178	1.00	0.00
ATOM	77	CA	GLN	9	6.291	-21.848	12.436	1.00	0.00
ATOM	78	CB	GLN	9	6.083	-23.364	12.299	1.00	0.00
ATOM	79	CG	GLN	9	7.329	-24.179	11.930	1.00	0.00
ATOM	80	CD	GLN	9	7.020	-25.675	11.768	1.00	0.00
ATOM	81	OE1	GLN	9	7.882	-26.445	11.352	1.00	0.00
ATOM	82	NE2	GLN	9	5.799	-26.111	12.087	1.00	0.00
ATOM	83	C	GLN	9	6.410	-21.136	11.086	1.00	0.00
ATOM	84	O	GLN	9	5.788	-21.546	10.106	1.00	0.00
ATOM	85	N	ALA	10	7.220	-20.072	11.041	1.00	0.00
ATOM	86	CA	ALA	10	7.472	-19.293	9.836	1.00	0.00
ATOM	87	CB	ALA	10	8.425	-18.141	10.160	1.00	0.00
ATOM	88	C	ALA	10	8.063	-20.208	8.763	1.00	0.00
ATOM	89	O	ALA	10	9.038	-20.910	9.028	1.00	0.00
ATOM	90	N	TRP	11	7.469	-20.218	7.567	1.00	0.00
ATOM	91	CA	TRP	11	7.922	-21.066	6.475	1.00	0.00
ATOM	92	CB	TRP	11	6.770	-21.312	5.501	1.00	0.00
ATOM	93	CG	TRP	11	5.606	-22.127	5.986	1.00	0.00
ATOM	94	CD1	TRP	11	4.759	-21.804	6.990	1.00	0.00
ATOM	95	NE1	TRP	11	3.804	-22.786	7.146	1.00	0.00
ATOM	96	CE2	TRP	11	3.999	-23.804	6.238	1.00	0.00
ATOM	97	CZ2	TRP	11	3.318	-25.001	5.993	1.00	0.00
ATOM	98	CH2	TRP	11	3.772	-25.853	4.980	1.00	0.00
ATOM	99	CZ3	TRP	11	4.898	-25.502	4.218	1.00	0.00
ATOM	100	CE3	TRP	11	5.575	-24.295	4.470	1.00	0.00
ATOM	101	CD2	TRP	11	5.145	-23.415	5.485	1.00	0.00
ATOM	102	C	TRP	11	9.098	-20.439	5.719	1.00	0.00
ATOM	103	O	TRP	11	9.146	-19.222	5.542	1.00	0.00
ATOM	104	N	LEU	12	10.026	-21.283	5.255	1.00	0.00

165				166			
ATOM	105	CA	LEU	12	11.198	-20.907	4.469 1.00 0.00
ATOM	106	CB	LEU	12	12.465	-20.854	5.339 1.00 0.00
ATOM	107	CG	LEU	12	12.794	-22.172	6.062 1.00 0.00
ATOM	108	CD1	LEU	12	14.311	-22.386	6.088 1.00 0.00
ATOM	109	CD2	LEU	12	12.279	-22.151	7.508 1.00 0.00
ATOM	110	C	LEU	12	11.328	-21.862	3.277 1.00 0.00
ATOM	111	O	LEU	12	10.548	-22.811	3.159 1.00 0.00
ATOM	112	N	TRP	13	12.298	-21.625	2.375 1.00 0.00
ATOM	113	CA	TRP	13	12.432	-22.480	1.200 1.00 0.00
ATOM	114	CB	TRP	13	13.405	-22.000	0.121 1.00 0.00
ATOM	115	CG	TRP	13	14.873	-22.099	0.402 1.00 0.00
ATOM	116	CD1	TRP	13	15.633	-21.013	0.583 1.00 0.00
ATOM	117	NE1	TRP	13	16.941	-21.362	0.833 1.00 0.00
ATOM	118	CE2	TRP	13	17.089	-22.734	0.817 1.00 0.00
ATOM	119	CZ2	TRP	13	18.199	-23.572	1.011 1.00 0.00
ATOM	120	CH2	TRP	13	18.030	-24.962	0.929 1.00 0.00
ATOM	121	CZ3	TRP	13	16.760	-25.493	0.651 1.00 0.00
ATOM	122	CE3	TRP	13	15.659	-24.644	0.453 1.00 0.00
ATOM	123	CD2	TRP	13	15.783	-23.240	0.536 1.00 0.00
ATOM	124	C	TRP	13	12.664	-23.942	1.509 1.00 0.00
ATOM	125	O	TRP	13	12.378	-24.739	0.638 1.00 0.00
ATOM	126	N	GLU	14	13.154	-24.356	2.678 1.00 0.00
ATOM	127	CA	GLU	14	13.303	-25.794	2.885 1.00 0.00
ATOM	128	CB	GLU	14	13.893	-26.091	4.267 1.00 0.00
ATOM	129	CG	GLU	14	15.310	-25.526	4.464 1.00 0.00
ATOM	130	CD	GLU	14	16.407	-26.341	3.782 1.00 0.00
ATOM	131	OE1	GLU	14	16.074	-27.364	3.144 1.00 0.00
ATOM	132	OE2	GLU	14	17.577	-25.926	3.927 1.00 0.00
ATOM	133	C	GLU	14	11.927	-26.440	2.686 1.00 0.00
ATOM	134	O	GLU	14	11.769	-27.377	1.900 1.00 0.00
ATOM	135	N	GLU	15	10.924	-25.890	3.373 1.00 0.00
ATOM	136	CA	GLU	15	9.554	-26.342	3.287 1.00 0.00
ATOM	137	CB	GLU	15	8.742	-25.716	4.420 1.00 0.00
ATOM	138	CG	GLU	15	9.298	-26.053	5.812 1.00 0.00
ATOM	139	CD	GLU	15	9.193	-24.844	6.727 1.00 0.00
ATOM	140	OE1	GLU	15	9.860	-23.840	6.402 1.00 0.00
ATOM	141	OE2	GLU	15	8.432	-24.937	7.713 1.00 0.00
ATOM	142	C	GLU	15	8.944	-25.987	1.927 1.00 0.00
ATOM	143	O	GLU	15	8.378	-26.862	1.286 1.00 0.00
ATOM	144	N	ASP	16	9.028	-24.728	1.475 1.00 0.00
ATOM	145	CA	ASP	16	8.419	-24.326	0.203 1.00 0.00
ATOM	146	CB	ASP	16	8.477	-22.811	-0.010 1.00 0.00
ATOM	147	CG	ASP	16	7.844	-22.029	1.129 1.00 0.00
ATOM	148	OD1	ASP	16	6.686	-22.340	1.479 1.00 0.00
ATOM	149	OD2	ASP	16	8.505	-21.086	1.611 1.00 0.00
ATOM	150	C	ASP	16	9.011	-25.037	-1.016 1.00 0.00
ATOM	151	O	ASP	16	8.281	-25.375	-1.941 1.00 0.00
ATOM	152	N	LYS	17	10.325	-25.259	-1.036 1.00 0.00
ATOM	153	CA	LYS	17	11.034	-25.921	-2.124 1.00 0.00
ATOM	154	CB	LYS	17	12.556	-25.691	-1.987 1.00 0.00

	167									168
ATOM	155	CG	LYS	17	13.328	-26.192	-3.212	1.00	0.00	
ATOM	156	CD	LYS	17	14.833	-26.000	-2.973	1.00	0.00	
ATOM	157	CE	LYS	17	15.688	-26.604	-4.094	1.00	0.00	
ATOM	158	NZ	LYS	17	15.459	-25.945	-5.394	1.00	0.00	
ATOM	159	C	LYS	17	10.611	-27.396	-2.126	1.00	0.00	
ATOM	160	O	LYS	17	10.243	-27.938	-3.171	1.00	0.00	
ATOM	161	N	ASN	18	10.630	-28.039	-0.948	1.00	0.00	
ATOM	162	CA	ASN	18	10.205	-29.425	-0.781	1.00	0.00	
ATOM	163	CB	ASN	18	10.409	-29.801	0.691	1.00	0.00	
ATOM	164	CG	ASN	18	9.933	-31.206	1.031	1.00	0.00	
ATOM	165	OD1	ASN	18	10.459	-32.186	0.512	1.00	0.00	
ATOM	166	ND2	ASN	18	8.949	-31.299	1.922	1.00	0.00	
ATOM	167	C	ASN	18	8.742	-29.582	-1.233	1.00	0.00	
ATOM	168	O	ASN	18	8.406	-30.499	-1.983	1.00	0.00	
ATOM	169	N	LEU	19	7.882	-28.660	-0.787	1.00	0.00	
ATOM	170	CA	LEU	19	6.465	-28.592	-1.111	1.00	0.00	
ATOM	171	CB	LEU	19	5.834	-27.394	-0.384	1.00	0.00	
ATOM	172	CG	LEU	19	4.367	-27.110	-0.738	1.00	0.00	
ATOM	173	CD1	LEU	19	3.486	-28.328	-0.457	1.00	0.00	
ATOM	174	CD2	LEU	19	3.880	-25.923	0.102	1.00	0.00	
ATOM	175	C	LEU	19	6.286	-28.487	-2.623	1.00	0.00	
ATOM	176	O	LEU	19	5.580	-29.302	-3.204	1.00	0.00	
ATOM	177	N	ARG	20	6.928	-27.499	-3.258	1.00	0.00	
ATOM	178	CA	ARG	20	6.872	-27.280	-4.699	1.00	0.00	
ATOM	179	CB	ARG	20	7.810	-26.136	-5.103	1.00	0.00	
ATOM	180	CG	ARG	20	7.178	-24.765	-4.823	1.00	0.00	
ATOM	181	CD	ARG	20	8.243	-23.667	-4.861	1.00	0.00	
ATOM	182	NE	ARG	20	7.649	-22.334	-4.669	1.00	0.00	
ATOM	183	CZ	ARG	20	7.282	-21.487	-5.646	1.00	0.00	
ATOM	184	NH1	ARG	20	7.372	-21.846	-6.932	1.00	0.00	
ATOM	185	NH2	ARG	20	6.818	-20.272	-5.331	1.00	0.00	
ATOM	186	C	ARG	20	7.224	-28.568	-5.443	1.00	0.00	
ATOM	187	O	ARG	20	6.547	-28.919	-6.407	1.00	0.00	
ATOM	188	N	SER	21	8.264	-29.281	-4.994	1.00	0.00	
ATOM	189	CA	SER	21	8.667	-30.539	-5.609	1.00	0.00	
ATOM	190	CB	SER	21	9.936	-31.074	-4.935	1.00	0.00	
ATOM	191	OG	SER	21	10.948	-30.086	-4.936	1.00	0.00	
ATOM	192	C	SER	21	7.510	-31.545	-5.538	1.00	0.00	
ATOM	193	O	SER	21	7.136	-32.141	-6.550	1.00	0.00	
ATOM	194	N	GLY	22	6.933	-31.716	-4.343	1.00	0.00	
ATOM	195	CA	GLY	22	5.809	-32.610	-4.115	1.00	0.00	
ATOM	196	C	GLY	22	4.606	-32.249	-4.988	1.00	0.00	
ATOM	197	O	GLY	22	3.994	-33.130	-5.588	1.00	0.00	
ATOM	198	N	VAL	23	4.269	-30.957	-5.069	1.00	0.00	
ATOM	199	CA	VAL	23	3.157	-30.465	-5.867	1.00	0.00	
ATOM	200	CB	VAL	23	2.859	-28.989	-5.553	1.00	0.00	
ATOM	201	CG1	VAL	23	1.796	-28.445	-6.515	1.00	0.00	
ATOM	202	CG2	VAL	23	2.323	-28.846	-4.124	1.00	0.00	
ATOM	203	C	VAL	23	3.427	-30.703	-7.351	1.00	0.00	
ATOM	204	O	VAL	23	2.522	-31.105	-8.070	1.00	0.00	

169					170				
ATOM	205	N	ARG	24	4.652	-30.481	-7.838	1.00	0.00
ATOM	206	CA	ARG	24	4.935	-30.734	-9.245	1.00	0.00
ATOM	207	CB	ARG	24	6.307	-30.163	-9.642	1.00	0.00
ATOM	208	CG	ARG	24	6.389	-29.952	-11.163	1.00	0.00
ATOM	209	CD	ARG	24	7.752	-29.370	-11.572	1.00	0.00
ATOM	210	NE	ARG	24	7.807	-29.010	-12.999	1.00	0.00
ATOM	211	CZ	ARG	24	7.889	-29.860	-14.037	1.00	0.00
ATOM	212	NH1	ARG	24	7.992	-29.362	-15.273	1.00	0.00
ATOM	213	NH2	ARG	24	7.874	-31.186	-13.845	1.00	0.00
ATOM	214	C	ARG	24	4.810	-32.238	-9.532	1.00	0.00
ATOM	215	O	ARG	24	4.433	-32.625	-10.635	1.00	0.00
ATOM	216	N	LYS	25	5.118	-33.086	-8.537	1.00	0.00
ATOM	217	CA	LYS	25	5.047	-34.535	-8.664	1.00	0.00
ATOM	218	CB	LYS	25	5.925	-35.183	-7.577	1.00	0.00
ATOM	219	CG	LYS	25	6.289	-36.647	-7.881	1.00	0.00
ATOM	220	CD	LYS	25	7.306	-36.857	-9.020	1.00	0.00
ATOM	221	CE	LYS	25	8.784	-36.702	-8.629	1.00	0.00
ATOM	222	NZ	LYS	25	9.147	-35.330	-8.224	1.00	0.00
ATOM	223	C	LYS	25	3.617	-35.096	-8.629	1.00	0.00
ATOM	224	O	LYS	25	3.299	-35.959	-9.444	1.00	0.00
ATOM	225	N	TYR	26	2.775	-34.655	-7.682	1.00	0.00
ATOM	226	CA	TYR	26	1.417	-35.179	-7.491	1.00	0.00
ATOM	227	CB	TYR	26	1.283	-35.670	-6.041	1.00	0.00
ATOM	228	CG	TYR	26	2.412	-36.560	-5.550	1.00	0.00
ATOM	229	CD1	TYR	26	2.892	-37.612	-6.355	1.00	0.00
ATOM	230	CE1	TYR	26	3.939	-38.428	-5.899	1.00	0.00
ATOM	231	CZ	TYR	26	4.507	-38.201	-4.635	1.00	0.00
ATOM	232	OH	TYR	26	5.525	-38.992	-4.189	1.00	0.00
ATOM	233	CE2	TYR	26	4.029	-37.155	-3.829	1.00	0.00
ATOM	234	CD2	TYR	26	2.984	-36.335	-4.286	1.00	0.00
ATOM	235	C	TYR	26	0.278	-34.201	-7.790	1.00	0.00
ATOM	236	O	TYR	26	-0.844	-34.641	-8.036	1.00	0.00
ATOM	237	N	GLY	27	0.541	-32.895	-7.751	1.00	0.00
ATOM	238	CA	GLY	27	-0.449	-31.848	-7.975	1.00	0.00
ATOM	239	C	GLY	27	-0.954	-31.324	-6.631	1.00	0.00
ATOM	240	O	GLY	27	-0.813	-31.995	-5.607	1.00	0.00
ATOM	241	N	GLU	28	-1.549	-30.125	-6.622	1.00	0.00
ATOM	242	CA	GLU	28	-2.084	-29.543	-5.398	1.00	0.00
ATOM	243	CB	GLU	28	-2.404	-28.049	-5.582	1.00	0.00
ATOM	244	CG	GLU	28	-3.334	-27.733	-6.764	1.00	0.00
ATOM	245	CD	GLU	28	-3.761	-26.266	-6.770	1.00	0.00
ATOM	246	OE1	GLU	28	-2.926	-25.405	-6.413	1.00	0.00
ATOM	247	OE2	GLU	28	-4.937	-25.995	-7.087	1.00	0.00
ATOM	248	C	GLU	28	-3.282	-30.369	-4.918	1.00	0.00
ATOM	249	O	GLU	28	-3.901	-31.087	-5.702	1.00	0.00
ATOM	250	N	GLY	29	-3.595	-30.284	-3.623	1.00	0.00
ATOM	251	CA	GLY	29	-4.690	-31.037	-3.030	1.00	0.00
ATOM	252	C	GLY	29	-4.321	-32.507	-2.839	1.00	0.00
ATOM	253	O	GLY	29	-5.160	-33.388	-3.012	1.00	0.00
ATOM	254	N	ASN	30	-3.061	-32.761	-2.468	1.00	0.00

(87)

特開2003-135087

171

172

ATOM	255	CA	ASN	30	-2.508	-34.086	-2.200	1.00	0.00
ATOM	256	CB	ASN	30	-1.814	-34.653	-3.449	1.00	0.00
ATOM	257	CG	ASN	30	-2.781	-34.927	-4.597	1.00	0.00
ATOM	258	OD1	ASN	30	-3.400	-35.987	-4.649	1.00	0.00
ATOM	259	ND2	ASN	30	-2.896	-33.988	-5.533	1.00	0.00
ATOM	260	C	ASN	30	-1.516	-33.946	-1.045	1.00	0.00
ATOM	261	O	ASN	30	-0.447	-34.556	-1.052	1.00	0.00
ATOM	262	N	TRP	31	-1.862	-33.117	-0.052	1.00	0.00
ATOM	263	CA	TRP	31	-1.011	-32.843	1.097	1.00	0.00
ATOM	264	CB	TRP	31	-1.599	-31.734	1.979	1.00	0.00
ATOM	265	CG	TRP	31	-2.375	-30.697	1.232	1.00	0.00
ATOM	266	CD1	TRP	31	-3.703	-30.474	1.343	1.00	0.00
ATOM	267	NE1	TRP	31	-4.077	-29.461	0.487	1.00	0.00
ATOM	268	CE2	TRP	31	-3.000	-28.978	-0.220	1.00	0.00
ATOM	269	CZ2	TRP	31	-2.874	-27.975	-1.191	1.00	0.00
ATOM	270	CH2	TRP	31	-1.611	-27.719	-1.738	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.496	-28.458	-1.314	1.00	0.00
ATOM	272	CE3	TRP	31	-0.635	-29.462	-0.338	1.00	0.00
ATOM	273	CD2	TRP	31	-1.893	-29.747	0.235	1.00	0.00
ATOM	274	C	TRP	31	-0.669	-34.122	1.861	1.00	0.00
ATOM	275	O	TRP	31	0.397	-34.192	2.462	1.00	0.00
ATOM	276	N	SER	32	-1.538	-35.137	1.817	1.00	0.00
ATOM	277	CA	SER	32	-1.312	-36.427	2.453	1.00	0.00
ATOM	278	CB	SER	32	-2.564	-37.297	2.281	1.00	0.00
ATOM	279	OG	SER	32	-2.984	-37.317	0.927	1.00	0.00
ATOM	280	C	SER	32	-0.079	-37.085	1.824	1.00	0.00
ATOM	281	O	SER	32	0.900	-37.387	2.505	1.00	0.00
ATOM	282	N	LYS	33	-0.126	-37.289	0.504	1.00	0.00
ATOM	283	CA	LYS	33	0.964	-37.877	-0.260	1.00	0.00
ATOM	284	CB	LYS	33	0.595	-37.927	-1.749	1.00	0.00
ATOM	285	CG	LYS	33	-0.510	-38.951	-2.058	1.00	0.00
ATOM	286	CD	LYS	33	-0.009	-40.404	-2.037	1.00	0.00
ATOM	287	CE	LYS	33	0.784	-40.762	-3.304	1.00	0.00
ATOM	288	NZ	LYS	33	1.466	-42.062	-3.166	1.00	0.00
ATOM	289	C	LYS	33	2.241	-37.067	-0.046	1.00	0.00
ATOM	290	O	LYS	33	3.302	-37.638	0.203	1.00	0.00
ATOM	291	N	ILE	34	2.136	-35.737	-0.132	1.00	0.00
ATOM	292	CA	ILE	34	3.268	-34.847	0.062	1.00	0.00
ATOM	293	CB	ILE	34	2.881	-33.397	-0.290	1.00	0.00
ATOM	294	CG2	ILE	34	4.044	-32.426	-0.043	1.00	0.00
ATOM	295	CG1	ILE	34	2.476	-33.308	-1.776	1.00	0.00
ATOM	296	CD1	ILE	34	1.805	-31.984	-2.148	1.00	0.00
ATOM	297	C	ILE	34	3.844	-35.038	1.474	1.00	0.00
ATOM	298	O	ILE	34	5.056	-35.122	1.612	1.00	0.00
ATOM	299	N	LEU	35	3.020	-35.136	2.523	1.00	0.00
ATOM	300	CA	LEU	35	3.501	-35.348	3.889	1.00	0.00
ATOM	301	CB	LEU	35	2.331	-35.411	4.889	1.00	0.00
ATOM	302	CG	LEU	35	1.795	-34.036	5.306	1.00	0.00
ATOM	303	CD1	LEU	35	0.367	-34.173	5.844	1.00	0.00
ATOM	304	CD2	LEU	35	2.673	-33.406	6.395	1.00	0.00

173				174			
ATOM	305	C	LEU	35	4.301	-36.647	3.989 1.00 0.00
ATOM	306	O	LEU	35	5.375	-36.666	4.587 1.00 0.00
ATOM	307	N	LEU	36	3.777	-37.737	3.421 1.00 0.00
ATOM	308	CA	LEU	36	4.434	-39.035	3.490 1.00 0.00
ATOM	309	CB	LEU	36	3.472	-40.143	3.026 1.00 0.00
ATOM	310	CG	LEU	36	2.639	-40.740	4.174 1.00 0.00
ATOM	311	CD1	LEU	36	1.738	-39.715	4.873 1.00 0.00
ATOM	312	CD2	LEU	36	1.771	-41.880	3.630 1.00 0.00
ATOM	313	C	LEU	36	5.745	-39.080	2.700 1.00 0.00
ATOM	314	O	LEU	36	6.777	-39.473	3.241 1.00 0.00
ATOM	315	N	HIS	37	5.706	-38.713	1.417 1.00 0.00
ATOM	316	CA	HIS	37	6.863	-38.776	0.533 1.00 0.00
ATOM	317	CB	HIS	37	6.365	-38.894	-0.911 1.00 0.00
ATOM	318	CG	HIS	37	5.455	-40.079	-1.127 1.00 0.00
ATOM	319	ND1	HIS	37	5.875	-41.387	-0.940 1.00 0.00
ATOM	320	CE1	HIS	37	4.828	-42.185	-1.213 1.00 0.00
ATOM	321	NE2	HIS	37	3.734	-41.507	-1.570 1.00 0.00
ATOM	322	CD2	HIS	37	4.138	-40.175	-1.512 1.00 0.00
ATOM	323	C	HIS	37	7.845	-37.611	0.710 1.00 0.00
ATOM	324	O	HIS	37	9.055	-37.828	0.724 1.00 0.00
ATOM	325	N	TYR	38	7.333	-36.385	0.832 1.00 0.00
ATOM	326	CA	TYR	38	8.105	-35.153	0.989 1.00 0.00
ATOM	327	CB	TYR	38	7.675	-34.142	-0.093 1.00 0.00
ATOM	328	CG	TYR	38	7.974	-34.551	-1.521 1.00 0.00
ATOM	329	CD1	TYR	38	7.119	-35.450	-2.181 1.00 0.00
ATOM	330	CE1	TYR	38	7.387	-35.839	-3.503 1.00 0.00
ATOM	331	CZ	TYR	38	8.509	-35.326	-4.172 1.00 0.00
ATOM	332	OH	TYR	38	8.757	-35.711	-5.456 1.00 0.00
ATOM	333	CE2	TYR	38	9.366	-34.424	-3.521 1.00 0.00
ATOM	334	CD2	TYR	38	9.100	-34.038	-2.195 1.00 0.00
ATOM	335	C	TYR	38	7.874	-34.598	2.397 1.00 0.00
ATOM	336	O	TYR	38	7.293	-33.529	2.558 1.00 0.00
ATOM	337	N	LYS	39	8.321	-35.328	3.423 1.00 0.00
ATOM	338	CA	LYS	39	8.151	-34.939	4.820 1.00 0.00
ATOM	339	CB	LYS	39	8.702	-36.038	5.740 1.00 0.00
ATOM	340	CG	LYS	39	10.220	-36.221	5.613 1.00 0.00
ATOM	341	CD	LYS	39	10.690	-37.334	6.556 1.00 0.00
ATOM	342	CE	LYS	39	12.212	-37.505	6.467 1.00 0.00
ATOM	343	NZ	LYS	39	12.695	-38.564	7.372 1.00 0.00
ATOM	344	C	LYS	39	8.736	-33.561	5.159 1.00 0.00
ATOM	345	O	LYS	39	9.628	-33.066	4.472 1.00 0.00
ATOM	346	N	PHE	40	8.212	-32.960	6.236 1.00 0.00
ATOM	347	CA	PHE	40	8.594	-31.654	6.765 1.00 0.00
ATOM	348	CB	PHE	40	7.420	-30.672	6.619 1.00 0.00
ATOM	349	CG	PHE	40	6.858	-30.517	5.223 1.00 0.00
ATOM	350	CD1	PHE	40	5.949	-31.464	4.723 1.00 0.00
ATOM	351	CE1	PHE	40	5.424	-31.325	3.430 1.00 0.00
ATOM	352	CZ	PHE	40	5.806	-30.235	2.629 1.00 0.00
ATOM	353	CE2	PHE	40	6.709	-29.283	3.131 1.00 0.00
ATOM	354	CD2	PHE	40	7.236	-29.423	4.425 1.00 0.00

(89)

特開2003-135087

175					176				
ATOM	355	C	PHE	40	8.939	-31.789	8.250	1.00	0.00
ATOM	356	O	PHE	40	8.919	-32.890	8.800	1.00	0.00
ATOM	357	N	ASN	41	9.236	-30.659	8.903	1.00	0.00
ATOM	358	CA	ASN	41	9.559	-30.608	10.321	1.00	0.00
ATOM	359	CB	ASN	41	10.098	-29.216	10.676	1.00	0.00
ATOM	360	CG	ASN	41	10.360	-29.086	12.176	1.00	0.00
ATOM	361	OD1	ASN	41	11.170	-29.821	12.731	1.00	0.00
ATOM	362	ND2	ASN	41	9.671	-28.159	12.841	1.00	0.00
ATOM	363	C	ASN	41	8.332	-30.967	11.165	1.00	0.00
ATOM	364	O	ASN	41	8.351	-31.964	11.881	1.00	0.00
ATOM	365	N	ASN	42	7.269	-30.154	11.086	1.00	0.00
ATOM	366	CA	ASN	42	6.040	-30.370	11.844	1.00	0.00
ATOM	367	CB	ASN	42	6.258	-29.924	13.300	1.00	0.00
ATOM	368	CG	ASN	42	5.026	-30.143	14.177	1.00	0.00
ATOM	369	OD1	ASN	42	4.155	-30.947	13.855	1.00	0.00
ATOM	370	ND2	ASN	42	4.948	-29.427	15.298	1.00	0.00
ATOM	371	C	ASN	42	4.883	-29.617	11.182	1.00	0.00
ATOM	372	O	ASN	42	4.417	-28.606	11.704	1.00	0.00
ATOM	373	N	ARG	43	4.435	-30.109	10.020	1.00	0.00
ATOM	374	CA	ARG	43	3.349	-29.562	9.214	1.00	0.00
ATOM	375	CB	ARG	43	3.859	-29.273	7.791	1.00	0.00
ATOM	376	CG	ARG	43	4.465	-27.875	7.606	1.00	0.00
ATOM	377	CD	ARG	43	5.591	-27.538	8.589	1.00	0.00
ATOM	378	NE	ARG	43	6.105	-26.176	8.400	1.00	0.00
ATOM	379	CZ	ARG	43	5.517	-25.056	8.853	1.00	0.00
ATOM	380	NH1	ARG	43	6.193	-23.909	8.770	1.00	0.00
ATOM	381	NH2	ARG	43	4.288	-25.096	9.387	1.00	0.00
ATOM	382	C	ARG	43	2.210	-30.583	9.160	1.00	0.00
ATOM	383	O	ARG	43	2.401	-31.752	9.492	1.00	0.00
ATOM	384	N	THR	44	1.029	-30.130	8.728	1.00	0.00
ATOM	385	CA	THR	44	-0.175	-30.934	8.577	1.00	0.00
ATOM	386	CB	THR	44	-1.171	-30.646	9.717	1.00	0.00
ATOM	387	CG2	THR	44	-0.518	-30.689	11.102	1.00	0.00
ATOM	388	OG1	THR	44	-1.799	-29.389	9.520	1.00	0.00
ATOM	389	C	THR	44	-0.829	-30.569	7.249	1.00	0.00
ATOM	390	O	THR	44	-0.431	-29.593	6.611	1.00	0.00
ATOM	391	N	SER	45	-1.856	-31.329	6.852	1.00	0.00
ATOM	392	CA	SER	45	-2.612	-31.060	5.639	1.00	0.00
ATOM	393	CB	SER	45	-3.764	-32.061	5.519	1.00	0.00
ATOM	394	OG	SER	45	-3.251	-33.368	5.401	1.00	0.00
ATOM	395	C	SER	45	-3.150	-29.630	5.676	1.00	0.00
ATOM	396	O	SER	45	-3.158	-28.949	4.655	1.00	0.00
ATOM	397	N	VAL	46	-3.584	-29.175	6.858	1.00	0.00
ATOM	398	CA	VAL	46	-4.103	-27.833	7.061	1.00	0.00
ATOM	399	CB	VAL	46	-4.732	-27.694	8.460	1.00	0.00
ATOM	400	CG1	VAL	46	-5.342	-26.300	8.634	1.00	0.00
ATOM	401	CG2	VAL	46	-5.843	-28.724	8.692	1.00	0.00
ATOM	402	C	VAL	46	-2.984	-26.812	6.833	1.00	0.00
ATOM	403	O	VAL	46	-3.162	-25.892	6.038	1.00	0.00
ATOM	404	N	MET	47	-1.839	-26.968	7.516	1.00	0.00

(90)

特開2003-135087

177

178

ATOM	405	CA	MET	47	-0.729	-26.028	7.360	1.00	0.00
ATOM	406	CB	MET	47	0.458	-26.359	8.287	1.00	0.00
ATOM	407	CG	MET	47	0.095	-26.610	9.757	1.00	0.00
ATOM	408	SD	MET	47	-1.240	-25.606	10.467	1.00	0.00
ATOM	409	CE	MET	47	-1.308	-26.341	12.118	1.00	0.00
ATOM	410	C	MET	47	-0.296	-25.924	5.890	1.00	0.00
ATOM	411	O	MET	47	-0.097	-24.824	5.376	1.00	0.00
ATOM	412	N	LEU	48	-0.165	-27.070	5.212	1.00	0.00
ATOM	413	CA	LEU	48	0.222	-27.156	3.808	1.00	0.00
ATOM	414	CB	LEU	48	0.387	-28.631	3.412	1.00	0.00
ATOM	415	CG	LEU	48	1.633	-29.240	4.069	1.00	0.00
ATOM	416	CD1	LEU	48	1.538	-30.764	4.148	1.00	0.00
ATOM	417	CD2	LEU	48	2.896	-28.903	3.275	1.00	0.00
ATOM	418	C	LEU	48	-0.806	-26.460	2.918	1.00	0.00
ATOM	419	O	LEU	48	-0.441	-25.631	2.084	1.00	0.00
ATOM	420	N	LYS	49	-2.087	-26.795	3.105	1.00	0.00
ATOM	421	CA	LYS	49	-3.197	-26.221	2.362	1.00	0.00
ATOM	422	CB	LYS	49	-4.519	-26.797	2.898	1.00	0.00
ATOM	423	CG	LYS	49	-5.784	-26.211	2.246	1.00	0.00
ATOM	424	CD	LYS	49	-6.819	-25.762	3.292	1.00	0.00
ATOM	425	CE	LYS	49	-6.376	-24.520	4.064	1.00	0.00
ATOM	426	NZ	LYS	49	-7.419	-23.989	4.965	1.00	0.00
ATOM	427	C	LYS	49	-3.152	-24.697	2.469	1.00	0.00
ATOM	428	O	LYS	49	-3.150	-24.015	1.448	1.00	0.00
ATOM	429	N	ASP	50	-3.118	-24.159	3.694	1.00	0.00
ATOM	430	CA	ASP	50	-3.091	-22.720	3.915	1.00	0.00
ATOM	431	CB	ASP	50	-3.241	-22.384	5.401	1.00	0.00
ATOM	432	CG	ASP	50	-4.673	-22.596	5.877	1.00	0.00
ATOM	433	OD1	ASP	50	-4.883	-23.496	6.716	1.00	0.00
ATOM	434	OD2	ASP	50	-5.564	-21.859	5.391	1.00	0.00
ATOM	435	C	ASP	50	-1.848	-22.076	3.307	1.00	0.00
ATOM	436	O	ASP	50	-1.974	-21.050	2.647	1.00	0.00
ATOM	437	N	ARG	51	-0.657	-22.657	3.507	1.00	0.00
ATOM	438	CA	ARG	51	0.569	-22.101	2.944	1.00	0.00
ATOM	439	CB	ARG	51	1.788	-22.960	3.315	1.00	0.00
ATOM	440	CG	ARG	51	3.091	-22.465	2.657	1.00	0.00
ATOM	441	CD	ARG	51	3.512	-21.085	3.173	1.00	0.00
ATOM	442	NE	ARG	51	4.856	-20.707	2.706	1.00	0.00
ATOM	443	CZ	ARG	51	5.384	-19.471	2.771	1.00	0.00
ATOM	444	NH1	ARG	51	4.674	-18.447	3.252	1.00	0.00
ATOM	445	NH2	ARG	51	6.638	-19.249	2.366	1.00	0.00
ATOM	446	C	ARG	51	0.447	-21.975	1.427	1.00	0.00
ATOM	447	O	ARG	51	0.596	-20.878	0.885	1.00	0.00
ATOM	448	N	TRP	52	0.182	-23.094	0.742	1.00	0.00
ATOM	449	CA	TRP	52	0.060	-23.096	-0.704	1.00	0.00
ATOM	450	CB	TRP	52	-0.170	-24.512	-1.227	1.00	0.00
ATOM	451	CG	TRP	52	-0.147	-24.600	-2.721	1.00	0.00
ATOM	452	CD1	TRP	52	-1.232	-24.569	-3.524	1.00	0.00
ATOM	453	NE1	TRP	52	-0.844	-24.672	-4.841	1.00	0.00
ATOM	454	CE2	TRP	52	0.527	-24.769	-4.956	1.00	0.00

179					180				
ATOM	455	CZ2	TRP	52	1.392	-24.887	-6.054	1.00	0.00
ATOM	456	CH2	TRP	52	2.776	-24.972	-5.829	1.00	0.00
ATOM	457	CZ3	TRP	52	3.273	-24.936	-4.515	1.00	0.00
ATOM	458	CE3	TRP	52	2.396	-24.813	-3.421	1.00	0.00
ATOM	459	CD2	TRP	52	1.001	-24.727	-3.611	1.00	0.00
ATOM	460	C	TRP	52	-1.056	-22.164	-1.167	1.00	0.00
ATOM	461	O	TRP	52	-0.895	-21.479	-2.169	1.00	0.00
ATOM	462	N	ARG	53	-2.182	-22.135	-0.450	1.00	0.00
ATOM	463	CA	ARG	53	-3.316	-21.292	-0.786	1.00	0.00
ATOM	464	CB	ARG	53	-4.481	-21.618	0.147	1.00	0.00
ATOM	465	CG	ARG	53	-5.716	-20.785	-0.195	1.00	0.00
ATOM	466	CD	ARG	53	-6.942	-21.349	0.522	1.00	0.00
ATOM	467	NE	ARG	53	-6.855	-21.207	1.986	1.00	0.00
ATOM	468	CZ	ARG	53	-7.927	-21.079	2.784	1.00	0.00
ATOM	469	NH1	ARG	53	-7.772	-20.842	4.092	1.00	0.00
ATOM	470	NH2	ARG	53	-9.158	-21.192	2.274	1.00	0.00
ATOM	471	C	ARG	53	-2.935	-19.812	-0.741	1.00	0.00
ATOM	472	O	ARG	53	-3.196	-19.088	-1.699	1.00	0.00
ATOM	473	N	THR	54	-2.320	-19.358	0.355	1.00	0.00
ATOM	474	CA	THR	54	-1.892	-17.975	0.512	1.00	0.00
ATOM	475	CB	THR	54	-1.291	-17.766	1.910	1.00	0.00
ATOM	476	CG2	THR	54	-0.820	-16.321	2.107	1.00	0.00
ATOM	477	OG1	THR	54	-2.271	-18.057	2.885	1.00	0.00
ATOM	478	C	THR	54	-0.891	-17.628	-0.589	1.00	0.00
ATOM	479	O	THR	54	-1.043	-16.614	-1.268	1.00	0.00
ATOM	480	N	MET	55	0.126	-18.480	-0.766	1.00	0.00
ATOM	481	CA	MET	55	1.153	-18.290	-1.776	1.00	0.00
ATOM	482	CB	MET	55	2.169	-19.437	-1.699	1.00	0.00
ATOM	483	CG	MET	55	3.442	-19.108	-2.491	1.00	0.00
ATOM	484	SD	MET	55	4.695	-20.416	-2.528	1.00	0.00
ATOM	485	CE	MET	55	3.850	-21.608	-3.590	1.00	0.00
ATOM	486	C	MET	55	0.522	-18.183	-3.166	1.00	0.00
ATOM	487	O	MET	55	0.880	-17.302	-3.936	1.00	0.00
ATOM	488	N	LYS	56	-0.417	-19.072	-3.492	1.00	0.00
ATOM	489	CA	LYS	56	-1.113	-19.104	-4.768	1.00	0.00
ATOM	490	CB	LYS	56	-2.007	-20.354	-4.817	1.00	0.00
ATOM	491	CG	LYS	56	-2.837	-20.455	-6.106	1.00	0.00
ATOM	492	CD	LYS	56	-3.390	-21.871	-6.332	1.00	0.00
ATOM	493	CE	LYS	56	-4.330	-22.333	-5.210	1.00	0.00
ATOM	494	NZ	LYS	56	-4.859	-23.684	-5.473	1.00	0.00
ATOM	495	C	LYS	56	-1.918	-17.825	-4.984	1.00	0.00
ATOM	496	O	LYS	56	-1.794	-17.187	-6.025	1.00	0.00
ATOM	497	N	LYS	57	-2.753	-17.463	-4.009	1.00	0.00
ATOM	498	CA	LYS	57	-3.617	-16.296	-4.073	1.00	0.00
ATOM	499	CB	LYS	57	-4.516	-16.275	-2.824	1.00	0.00
ATOM	500	CG	LYS	57	-5.543	-15.132	-2.871	1.00	0.00
ATOM	501	CD	LYS	57	-6.360	-15.010	-1.576	1.00	0.00
ATOM	502	CE	LYS	57	-7.298	-16.203	-1.348	1.00	0.00
ATOM	503	NZ	LYS	57	-8.205	-15.973	-0.206	1.00	0.00
ATOM	504	C	LYS	57	-2.838	-14.985	-4.216	1.00	0.00

(92)

特開2003-135087

181					182				
ATOM	505	O	LYS	57	-3.136	-14.194	-5.107	1.00	0.00
ATOM	506	N	LEU	58	-1.882	-14.739	-3.316	1.00	0.00
ATOM	507	CA	LEU	58	-1.128	-13.494	-3.269	1.00	0.00
ATOM	508	CB	LEU	58	-0.867	-13.126	-1.799	1.00	0.00
ATOM	509	CG	LEU	58	-2.144	-13.065	-0.939	1.00	0.00
ATOM	510	CD1	LEU	58	-1.762	-12.742	0.508	1.00	0.00
ATOM	511	CD2	LEU	58	-3.129	-12.001	-1.440	1.00	0.00
ATOM	512	C	LEU	58	0.181	-13.518	-4.058	1.00	0.00
ATOM	513	O	LEU	58	0.380	-12.693	-4.946	1.00	0.00
ATOM	514	N	LYS	59	1.093	-14.431	-3.716	1.00	0.00
ATOM	515	CA	LYS	59	2.410	-14.504	-4.336	1.00	0.00
ATOM	516	CB	LYS	59	3.354	-15.315	-3.435	1.00	0.00
ATOM	517	CG	LYS	59	4.810	-14.860	-3.594	1.00	0.00
ATOM	518	CD	LYS	59	5.762	-15.554	-2.607	1.00	0.00
ATOM	519	CE	LYS	59	5.377	-15.401	-1.125	1.00	0.00
ATOM	520	NZ	LYS	59	5.088	-14.002	-0.749	1.00	0.00
ATOM	521	C	LYS	59	2.390	-15.004	-5.786	1.00	0.00
ATOM	522	O	LYS	59	3.260	-14.619	-6.563	1.00	0.00
ATOM	523	N	LEU	60	1.420	-15.853	-6.144	1.00	0.00
ATOM	524	CA	LEU	60	1.249	-16.433	-7.467	1.00	0.00
ATOM	525	CB	LEU	60	0.911	-15.356	-8.515	1.00	0.00
ATOM	526	CG	LEU	60	-0.430	-14.655	-8.234	1.00	0.00
ATOM	527	CD1	LEU	60	-0.425	-13.256	-8.856	1.00	0.00
ATOM	528	CD2	LEU	60	-1.600	-15.457	-8.816	1.00	0.00
ATOM	529	C	LEU	60	2.469	-17.271	-7.834	1.00	0.00
ATOM	530	O	LEU	60	3.238	-16.903	-8.717	1.00	0.00
ATOM	531	N	ILE	61	2.594	-18.402	-7.125	1.00	0.00
ATOM	532	CA	ILE	61	3.604	-19.457	-7.189	1.00	0.00
ATOM	533	CB	ILE	61	2.921	-20.778	-7.596	1.00	0.00
ATOM	534	CG2	ILE	61	3.914	-21.945	-7.704	1.00	0.00
ATOM	535	CG1	ILE	61	1.803	-21.179	-6.614	1.00	0.00
ATOM	536	CD1	ILE	61	0.479	-21.347	-7.358	1.00	0.00
ATOM	537	C	ILE	61	4.825	-19.135	-8.058	1.00	0.00
ATOM	538	O	ILE	61	5.892	-18.868	-7.509	1.00	0.00
ATOM	539	N	SER	62	4.659	-19.193	-9.387	1.00	0.00
ATOM	540	CA	SER	62	5.669	-18.958	-10.413	1.00	0.00
ATOM	541	CB	SER	62	6.120	-17.488	-10.457	1.00	0.00
ATOM	542	OG	SER	62	7.015	-17.179	-9.412	1.00	0.00
ATOM	543	C	SER	62	6.832	-19.948	-10.325	1.00	0.00
ATOM	544	O	SER	62	6.929	-20.734	-9.382	1.00	0.00
ATOM	545	N	SER	63	7.715	-19.924	-11.324	1.00	0.00
ATOM	546	CA	SER	63	8.869	-20.803	-11.409	1.00	0.00
ATOM	547	CB	SER	63	8.399	-22.235	-11.721	1.00	0.00
ATOM	548	OG	SER	63	9.459	-23.158	-11.581	1.00	0.00
ATOM	549	C	SER	63	9.785	-20.279	-12.515	1.00	0.00
ATOM	550	O	SER	63	9.620	-19.150	-12.981	1.00	0.00
ATOM	551	N	ASP	64	10.730	-21.118	-12.944	1.00	0.00
ATOM	552	CA	ASP	64	11.660	-20.824	-14.019	1.00	0.00
ATOM	553	CB	ASP	64	12.834	-21.813	-13.914	1.00	0.00
ATOM	554	CG	ASP	64	14.046	-21.462	-14.773	1.00	0.00

183				184			
ATOM	555	OD1 ASP	64	14.056	-20.350	-15.348	1.00 0.00
ATOM	556	OD2 ASP	64	14.954	-22.318	-14.835	1.00 0.00
ATOM	557	C ASP	64	10.908	-20.934	-15.355	1.00 0.00
ATOM	558	O ASP	64	9.710	-21.223	-15.379	1.00 0.00
ATOM	559	N SER	65	11.598	-20.704	-16.473	1.00 0.00
ATOM	560	CA SER	65	11.031	-20.766	-17.810	1.00 0.00
ATOM	561	CB SER	65	11.971	-20.041	-18.781	1.00 0.00
ATOM	562	OG SER	65	12.159	-18.705	-18.359	1.00 0.00
ATOM	563	C SER	65	10.768	-22.209	-18.255	1.00 0.00
ATOM	564	O SER	65	11.434	-22.711	-19.156	1.00 0.00
ATOM	565	N GLU	66	9.785	-22.869	-17.632	1.00 0.00
ATOM	566	CA GLU	66	9.385	-24.231	-17.955	1.00 0.00
ATOM	567	CB GLU	66	8.591	-24.830	-16.779	1.00 0.00
ATOM	568	CG GLU	66	9.454	-25.018	-15.524	1.00 0.00
ATOM	569	CD GLU	66	8.665	-25.657	-14.384	1.00 0.00
ATOM	570	OE1 GLU	66	8.168	-26.786	-14.596	1.00 0.00
ATOM	571	OE2 GLU	66	8.576	-25.026	-13.311	1.00 0.00
ATOM	572	C GLU	66	8.551	-24.207	-19.242	1.00 0.00
ATOM	573	O GLU	66	7.327	-24.326	-19.188	1.00 0.00
ATOM	574	N ASP	67	9.216	-24.041	-20.392	1.00 0.00
ATOM	575	CA ASP	67	8.579	-23.989	-21.702	1.00 0.00
ATOM	576	CB ASP	67	9.449	-23.183	-22.681	1.00 0.00
ATOM	577	CG ASP	67	10.791	-23.841	-22.997	1.00 0.00
ATOM	578	OD1 ASP	67	11.026	-24.118	-24.194	1.00 0.00
ATOM	579	OD2 ASP	67	11.581	-24.015	-22.043	1.00 0.00
ATOM	580	C ASP	67	8.252	-25.387	-22.242	1.00 0.00
ATOM	581	OT1 ASP	67	8.602	-26.373	-21.555	1.00 0.00
ATOM	582	OT2 ASP	67	7.418	-25.433	-23.173	1.00 0.00
ATOM	583	O5' GUA	68	-7.585	-39.805	11.034	1.00 0.00
ATOM	584	C5' GUA	68	-7.255	-40.712	10.003	1.00 0.00
ATOM	585	C4' GUA	68	-7.381	-40.030	8.637	1.00 0.00
ATOM	586	O4' GUA	68	-8.671	-39.477	8.475	1.00 0.00
ATOM	587	C1' GUA	68	-8.608	-38.428	7.532	1.00 0.00
ATOM	588	N9 GUA	68	-9.779	-37.547	7.727	1.00 0.00
ATOM	589	C8 GUA	68	-10.256	-37.041	8.909	1.00 0.00
ATOM	590	N7 GUA	68	-11.387	-36.401	8.802	1.00 0.00
ATOM	591	C5 GUA	68	-11.675	-36.469	7.443	1.00 0.00
ATOM	592	C6 GUA	68	-12.793	-35.960	6.715	1.00 0.00
ATOM	593	O6 GUA	68	-13.796	-35.405	7.156	1.00 0.00
ATOM	594	N1 GUA	68	-12.666	-36.157	5.346	1.00 0.00
ATOM	595	C2 GUA	68	-11.617	-36.824	4.745	1.00 0.00
ATOM	596	N2 GUA	68	-11.624	-36.922	3.414	1.00 0.00
ATOM	597	N3 GUA	68	-10.595	-37.355	5.431	1.00 0.00
ATOM	598	C4 GUA	68	-10.678	-37.137	6.771	1.00 0.00
ATOM	599	C3' GUA	68	-6.395	-38.868	8.441	1.00 0.00
ATOM	600	C2' GUA	68	-7.307	-37.746	7.923	1.00 0.00
ATOM	601	O3' GUA	68	-5.415	-39.300	7.505	1.00 0.00
ATOM	602	P THY	69	-4.181	-38.378	7.006	1.00 0.00
ATOM	603	OP1 THY	69	-3.261	-39.227	6.218	1.00 0.00
ATOM	604	OP2 THY	69	-3.671	-37.610	8.162	1.00 0.00

185				186				
ATOM	605	O5' THY	69	-4.895	-37.355	5.989	1.00	0.00
ATOM	606	C5' THY	69	-5.708	-37.831	4.933	1.00	0.00
ATOM	607	C4' THY	69	-6.630	-36.735	4.388	1.00	0.00
ATOM	608	O4' THY	69	-7.663	-36.267	5.219	1.00	0.00
ATOM	609	C1' THY	69	-8.110	-35.044	4.679	1.00	0.00
ATOM	610	N1 THY	69	-9.012	-34.363	5.642	1.00	0.00
ATOM	611	C6 THY	69	-8.711	-34.367	6.983	1.00	0.00
ATOM	612	C5 THY	69	-9.545	-33.801	7.890	1.00	0.00
ATOM	613	C7 THY	69	-9.090	-33.830	9.337	1.00	0.00
ATOM	614	C4 THY	69	-10.804	-33.203	7.491	1.00	0.00
ATOM	615	O4 THY	69	-11.630	-32.689	8.240	1.00	0.00
ATOM	616	N3 THY	69	-11.041	-33.253	6.128	1.00	0.00
ATOM	617	C2 THY	69	-10.196	-33.792	5.172	1.00	0.00
ATOM	618	O2 THY	69	-10.504	-33.754	3.983	1.00	0.00
ATOM	619	C3' THY	69	-5.894	-35.468	3.937	1.00	0.00
ATOM	620	C2' THY	69	-6.770	-34.342	4.499	1.00	0.00
ATOM	621	O3' THY	69	-5.768	-35.432	2.527	1.00	0.00
ATOM	622	P THY	70	-4.867	-34.309	1.805	1.00	0.00
ATOM	623	OP1 THY	70	-4.226	-34.913	0.615	1.00	0.00
ATOM	624	OP2 THY	70	-4.005	-33.708	2.841	1.00	0.00
ATOM	625	O5' THY	70	-5.925	-33.185	1.347	1.00	0.00
ATOM	626	C5' THY	70	-6.905	-33.430	0.354	1.00	0.00
ATOM	627	C4' THY	70	-8.017	-32.379	0.459	1.00	0.00
ATOM	628	O4' THY	70	-8.536	-32.367	1.773	1.00	0.00
ATOM	629	C1' THY	70	-9.237	-31.160	1.947	1.00	0.00
ATOM	630	N1 THY	70	-9.456	-30.869	3.386	1.00	0.00
ATOM	631	C6 THY	70	-8.425	-31.020	4.281	1.00	0.00
ATOM	632	C5 THY	70	-8.600	-30.766	5.600	1.00	0.00
ATOM	633	C7 THY	70	-7.379	-30.971	6.474	1.00	0.00
ATOM	634	C4 THY	70	-9.879	-30.326	6.125	1.00	0.00
ATOM	635	O4 THY	70	-10.122	-30.050	7.299	1.00	0.00
ATOM	636	N3 THY	70	-10.874	-30.237	5.169	1.00	0.00
ATOM	637	C2 THY	70	-10.713	-30.435	3.806	1.00	0.00
ATOM	638	O2 THY	70	-11.636	-30.196	3.033	1.00	0.00
ATOM	639	C3' THY	70	-7.554	-30.934	0.227	1.00	0.00
ATOM	640	C2' THY	70	-8.309	-30.135	1.299	1.00	0.00
ATOM	641	O3' THY	70	-7.855	-30.503	-1.090	1.00	0.00
ATOM	642	P ADE	71	-7.432	-29.038	-1.626	1.00	0.00
ATOM	643	OP1 ADE	71	-6.200	-28.621	-0.919	1.00	0.00
ATOM	644	OP2 ADE	71	-7.465	-29.047	-3.103	1.00	0.00
ATOM	645	O5' ADE	71	-8.604	-28.085	-1.101	1.00	0.00
ATOM	646	C5' ADE	71	-9.923	-28.140	-1.600	1.00	0.00
ATOM	647	C4' ADE	71	-10.780	-27.131	-0.824	1.00	0.00
ATOM	648	O4' ADE	71	-11.071	-27.602	0.494	1.00	0.00
ATOM	649	C1' ADE	71	-10.907	-26.526	1.395	1.00	0.00
ATOM	650	N9 ADE	71	-10.714	-26.920	2.810	1.00	0.00
ATOM	651	C8 ADE	71	-9.582	-27.445	3.369	1.00	0.00
ATOM	652	N7 ADE	71	-9.569	-27.496	4.667	1.00	0.00
ATOM	653	C5 ADE	71	-10.814	-26.989	5.001	1.00	0.00
ATOM	654	C6 ADE	71	-11.424	-26.758	6.243	1.00	0.00

	187								188
ATOM	655	N6	ADE	71	-10.808	-27.068	7.381	1.00	0.00
ATOM	656	N1	ADE	71	-12.635	-26.174	6.274	1.00	0.00
ATOM	657	C2	ADE	71	-13.219	-25.861	5.117	1.00	0.00
ATOM	658	N3	ADE	71	-12.754	-26.037	3.881	1.00	0.00
ATOM	659	C4	ADE	71	-11.524	-26.621	3.887	1.00	0.00
ATOM	660	C3'	ADE	71	-10.042	-25.789	-0.637	1.00	0.00
ATOM	661	C2'	ADE	71	-9.617	-25.948	0.819	1.00	0.00
ATOM	662	O3'	ADE	71	-10.974	-24.745	-0.799	1.00	0.00
ATOM	663	P	GUA	72	-10.580	-23.186	-0.882	1.00	0.00
ATOM	664	OP1	GUA	72	-10.511	-22.771	-2.300	1.00	0.00
ATOM	665	OP2	GUA	72	-9.465	-22.873	0.045	1.00	0.00
ATOM	666	O5'	GUA	72	-11.889	-22.565	-0.213	1.00	0.00
ATOM	667	C5'	GUA	72	-13.198	-22.920	-0.610	1.00	0.00
ATOM	668	C4'	GUA	72	-14.146	-22.461	0.499	1.00	0.00
ATOM	669	O4'	GUA	72	-13.823	-23.132	1.712	1.00	0.00
ATOM	670	C1'	GUA	72	-13.489	-22.218	2.744	1.00	0.00
ATOM	671	N9	GUA	72	-12.360	-22.746	3.555	1.00	0.00
ATOM	672	C8	GUA	72	-11.163	-23.243	3.110	1.00	0.00
ATOM	673	N7	GUA	72	-10.320	-23.589	4.046	1.00	0.00
ATOM	674	C5	GUA	72	-11.040	-23.360	5.214	1.00	0.00
ATOM	675	C6	GUA	72	-10.686	-23.624	6.570	1.00	0.00
ATOM	676	O6	GUA	72	-9.625	-24.081	6.992	1.00	0.00
ATOM	677	N1	GUA	72	-11.708	-23.308	7.459	1.00	0.00
ATOM	678	C2	GUA	72	-12.933	-22.787	7.087	1.00	0.00
ATOM	679	N2	GUA	72	-13.796	-22.471	8.053	1.00	0.00
ATOM	680	N3	GUA	72	-13.264	-22.529	5.814	1.00	0.00
ATOM	681	C4	GUA	72	-12.287	-22.846	4.925	1.00	0.00
ATOM	682	C3'	GUA	72	-13.973	-20.964	0.758	1.00	0.00
ATOM	683	C2'	GUA	72	-13.074	-20.957	1.994	1.00	0.00
ATOM	684	O3'	GUA	72	-15.244	-20.378	0.958	1.00	0.00
ATOM	685	P	GUA	73	-15.442	-18.780	1.070	1.00	0.00
ATOM	686	OP1	GUA	73	-16.832	-18.454	0.687	1.00	0.00
ATOM	687	OP2	GUA	73	-14.310	-18.108	0.393	1.00	0.00
ATOM	688	O5'	GUA	73	-15.285	-18.560	2.650	1.00	0.00
ATOM	689	C5'	GUA	73	-16.238	-19.088	3.550	1.00	0.00
ATOM	690	C4'	GUA	73	-15.732	-18.918	4.980	1.00	0.00
ATOM	691	O4'	GUA	73	-14.499	-19.593	5.149	1.00	0.00
ATOM	692	C1'	GUA	73	-13.729	-18.868	6.079	1.00	0.00
ATOM	693	N9	GUA	73	-12.310	-19.285	6.007	1.00	0.00
ATOM	694	C8	GUA	73	-11.488	-19.353	4.910	1.00	0.00
ATOM	695	N7	GUA	73	-10.328	-19.914	5.129	1.00	0.00
ATOM	696	C5	GUA	73	-10.371	-20.202	6.489	1.00	0.00
ATOM	697	C6	GUA	73	-9.400	-20.831	7.318	1.00	0.00
ATOM	698	O6	GUA	73	-8.303	-21.264	6.976	1.00	0.00
ATOM	699	N1	GUA	73	-9.824	-20.968	8.635	1.00	0.00
ATOM	700	C2	GUA	73	-11.051	-20.548	9.104	1.00	0.00
ATOM	701	N2	GUA	73	-11.316	-20.723	10.398	1.00	0.00
ATOM	702	N3	GUA	73	-11.967	-19.953	8.329	1.00	0.00
ATOM	703	C4	GUA	73	-11.571	-19.811	7.037	1.00	0.00
ATOM	704	C3'	GUA	73	-15.469	-17.448	5.347	1.00	0.00

189				190			
ATOM	705	C2' GUA	73	-13.955	-17.444	5.588	1.00 0.00
ATOM	706	O3' GUA	73	-16.238	-17.151	6.498	1.00 0.00
ATOM	707	P GUA	74	-16.233	-15.705	7.209	1.00 0.00
ATOM	708	OP1 GUA	74	-15.409	-14.770	6.410	1.00 0.00
ATOM	709	OP2 GUA	74	-17.626	-15.349	7.557	1.00 0.00
ATOM	710	O5' GUA	74	-15.441	-16.052	8.564	1.00 0.00
ATOM	711	C5' GUA	74	-15.993	-16.947	9.512	1.00 0.00
ATOM	712	C4' GUA	74	-15.049	-17.109	10.703	1.00 0.00
ATOM	713	O4' GUA	74	-13.811	-17.642	10.265	1.00 0.00
ATOM	714	C1' GUA	74	-12.743	-16.936	10.858	1.00 0.00
ATOM	715	N9 GUA	74	-11.573	-17.008	9.954	1.00 0.00
ATOM	716	C8 GUA	74	-11.513	-16.646	8.631	1.00 0.00
ATOM	717	N7 GUA	74	-10.388	-16.938	8.042	1.00 0.00
ATOM	718	C5 GUA	74	-9.644	-17.541	9.047	1.00 0.00
ATOM	719	C6 GUA	74	-8.348	-18.128	8.989	1.00 0.00
ATOM	720	O6 GUA	74	-7.627	-18.251	8.003	1.00 0.00
ATOM	721	N1 GUA	74	-7.928	-18.626	10.216	1.00 0.00
ATOM	722	C2 GUA	74	-8.690	-18.602	11.365	1.00 0.00
ATOM	723	N2 GUA	74	-8.133	-19.082	12.479	1.00 0.00
ATOM	724	N3 GUA	74	-9.924	-18.079	11.418	1.00 0.00
ATOM	725	C4 GUA	74	-10.347	-17.571	10.229	1.00 0.00
ATOM	726	C3' GUA	74	-14.740	-15.770	11.386	1.00 0.00
ATOM	727	C2' GUA	74	-13.295	-15.517	10.957	1.00 0.00
ATOM	728	O3' GUA	74	-14.914	-15.932	12.781	1.00 0.00
ATOM	729	P THY	75	-14.690	-14.727	13.827	1.00 0.00
ATOM	730	OP1 THY	75	-14.701	-13.441	13.097	1.00 0.00
ATOM	731	OP2 THY	75	-15.595	-14.934	14.978	1.00 0.00
ATOM	732	O5' THY	75	-13.187	-15.032	14.301	1.00 0.00
ATOM	733	C5' THY	75	-12.888	-16.192	15.050	1.00 0.00
ATOM	734	C4' THY	75	-11.389	-16.255	15.325	1.00 0.00
ATOM	735	O4' THY	75	-10.666	-16.333	14.111	1.00 0.00
ATOM	736	C1' THY	75	-9.424	-15.687	14.289	1.00 0.00
ATOM	737	N1 THY	75	-8.813	-15.389	12.964	1.00 0.00
ATOM	738	C6 THY	75	-9.547	-14.744	11.994	1.00 0.00
ATOM	739	C5 THY	75	-9.046	-14.550	10.748	1.00 0.00
ATOM	740	C7 THY	75	-9.935	-13.796	9.776	1.00 0.00
ATOM	741	C4 THY	75	-7.735	-15.034	10.374	1.00 0.00
ATOM	742	O4 THY	75	-7.221	-14.940	9.263	1.00 0.00
ATOM	743	N3 THY	75	-7.053	-15.659	11.402	1.00 0.00
ATOM	744	C2 THY	75	-7.526	-15.859	12.691	1.00 0.00
ATOM	745	O2 THY	75	-6.820	-16.429	13.518	1.00 0.00
ATOM	746	C3' THY	75	-10.874	-14.999	16.048	1.00 0.00
ATOM	747	C2' THY	75	-9.851	-14.436	15.053	1.00 0.00
ATOM	748	O3' THY	75	-10.323	-15.399	17.290	1.00 0.00
ATOM	749	P THY	76	-9.759	-14.340	18.367	1.00 0.00
ATOM	750	OP1 THY	76	-9.801	-14.967	19.706	1.00 0.00
ATOM	751	OP2 THY	76	-10.408	-13.030	18.142	1.00 0.00
ATOM	752	O5' THY	76	-8.225	-14.230	17.913	1.00 0.00
ATOM	753	C5' THY	76	-7.354	-15.333	18.046	1.00 0.00
ATOM	754	C4' THY	76	-6.024	-15.024	17.366	1.00 0.00

191				192				
ATOM	755	O4' THY	76	-6.205	-14.834	15.975	1.00	0.00
ATOM	756	C1' THY	76	-5.247	-13.895	15.549	1.00	0.00
ATOM	757	N1 THY	76	-5.539	-13.414	14.170	1.00	0.00
ATOM	758	C6 THY	76	-6.685	-12.705	13.895	1.00	0.00
ATOM	759	C5 THY	76	-6.948	-12.248	12.644	1.00	0.00
ATOM	760	C7 THY	76	-8.232	-11.455	12.493	1.00	0.00
ATOM	761	C4 THY	76	-6.049	-12.503	11.537	1.00	0.00
ATOM	762	O4 THY	76	-6.214	-12.158	10.369	1.00	0.00
ATOM	763	N3 THY	76	-4.938	-13.245	11.889	1.00	0.00
ATOM	764	C2 THY	76	-4.641	-13.734	13.149	1.00	0.00
ATOM	765	O2 THY	76	-3.630	-14.415	13.316	1.00	0.00
ATOM	766	C3' THY	76	-5.370	-13.731	17.885	1.00	0.00
ATOM	767	C2' THY	76	-5.402	-12.838	16.642	1.00	0.00
ATOM	768	O3' THY	76	-4.050	-14.051	18.262	1.00	0.00
ATOM	769	P ADE	77	-3.162	-13.116	19.227	1.00	0.00
ATOM	770	OP1 ADE	77	-3.307	-13.593	20.619	1.00	0.00
ATOM	771	OP2 ADE	77	-3.401	-11.696	18.890	1.00	0.00
ATOM	772	O5' ADE	77	-1.707	-13.524	18.689	1.00	0.00
ATOM	773	C5' ADE	77	-1.251	-14.858	18.784	1.00	0.00
ATOM	774	C4' ADE	77	-0.344	-15.182	17.598	1.00	0.00
ATOM	775	O4' ADE	77	-0.969	-14.812	16.379	1.00	0.00
ATOM	776	C1' ADE	77	-0.126	-13.952	15.634	1.00	0.00
ATOM	777	N9 ADE	77	-0.946	-13.011	14.843	1.00	0.00
ATOM	778	C8 ADE	77	-1.977	-12.218	15.284	1.00	0.00
ATOM	779	N7 ADE	77	-2.561	-11.526	14.346	1.00	0.00
ATOM	780	C5 ADE	77	-1.848	-11.867	13.203	1.00	0.00
ATOM	781	C6 ADE	77	-1.961	-11.471	11.858	1.00	0.00
ATOM	782	N6 ADE	77	-2.900	-10.614	11.456	1.00	0.00
ATOM	783	N1 ADE	77	-1.071	-11.947	10.965	1.00	0.00
ATOM	784	C2 ADE	77	-0.142	-12.805	11.385	1.00	0.00
ATOM	785	N3 ADE	77	0.010	-13.329	12.601	1.00	0.00
ATOM	786	C4 ADE	77	-0.861	-12.775	13.490	1.00	0.00
ATOM	787	C3' ADE	77	0.988	-14.431	17.624	1.00	0.00
ATOM	788	C2' ADE	77	0.707	-13.249	16.699	1.00	0.00
ATOM	789	O3' ADE	77	1.926	-15.339	17.086	1.00	0.00
ATOM	790	P GUA	78	3.505	-15.117	17.192	1.00	0.00
ATOM	791	OP1 GUA	78	3.814	-14.462	18.481	1.00	0.00
ATOM	792	OP2 GUA	78	4.137	-16.408	16.853	1.00	0.00
ATOM	793	O5' GUA	78	3.802	-14.086	16.006	1.00	0.00
ATOM	794	C5' GUA	78	3.974	-14.539	14.681	1.00	0.00
ATOM	795	C4' GUA	78	4.086	-13.359	13.728	1.00	0.00
ATOM	796	O4' GUA	78	2.880	-12.641	13.627	1.00	0.00
ATOM	797	C1' GUA	78	3.218	-11.410	13.036	1.00	0.00
ATOM	798	N9 GUA	78	2.064	-10.490	13.106	1.00	0.00
ATOM	799	C8 GUA	78	1.304	-10.152	14.196	1.00	0.00
ATOM	800	N7 GUA	78	0.264	-9.417	13.914	1.00	0.00
ATOM	801	C5 GUA	78	0.342	-9.245	12.535	1.00	0.00
ATOM	802	C6 GUA	78	-0.526	-8.549	11.637	1.00	0.00
ATOM	803	O6 GUA	78	-1.549	-7.922	11.896	1.00	0.00
ATOM	804	N1 GUA	78	-0.104	-8.637	10.316	1.00	0.00

193

194

ATOM	805	C2	GUA	78	1.024	-9.311	9.901	1.00	0.00
ATOM	806	N2	GUA	78	1.346	-9.233	8.610	1.00	0.00
ATOM	807	N3	GUA	78	1.836	-9.972	10.736	1.00	0.00
ATOM	808	C4	GUA	78	1.441	-9.901	12.034	1.00	0.00
ATOM	809	C3'	GUA	78	5.126	-12.317	14.158	1.00	0.00
ATOM	810	C2'	GUA	78	4.400	-10.985	13.904	1.00	0.00
ATOM	811	O3'	GUA	78	6.270	-12.559	13.368	1.00	0.00
ATOM	812	P	GUA	79	7.625	-11.721	13.514	1.00	0.00
ATOM	813	OP1	GUA	79	8.722	-12.616	13.077	1.00	0.00
ATOM	814	OP2	GUA	79	7.674	-11.162	14.884	1.00	0.00
ATOM	815	O5'	GUA	79	7.396	-10.552	12.433	1.00	0.00
ATOM	816	C5'	GUA	79	7.229	-10.868	11.060	1.00	0.00
ATOM	817	C4'	GUA	79	6.597	-9.708	10.290	1.00	0.00
ATOM	818	O4'	GUA	79	5.340	-9.338	10.829	1.00	0.00
ATOM	819	C1'	GUA	79	5.092	-8.009	10.430	1.00	0.00
ATOM	820	N9	GUA	79	3.992	-7.410	11.221	1.00	0.00
ATOM	821	C8	GUA	79	3.828	-7.429	12.582	1.00	0.00
ATOM	822	N7	GUA	79	2.735	-6.856	12.999	1.00	0.00
ATOM	823	C5	GUA	79	2.125	-6.415	11.830	1.00	0.00
ATOM	824	C6	GUA	79	0.884	-5.737	11.644	1.00	0.00
ATOM	825	O6	GUA	79	0.078	-5.375	12.498	1.00	0.00
ATOM	826	N1	GUA	79	0.600	-5.505	10.304	1.00	0.00
ATOM	827	C2	GUA	79	1.421	-5.865	9.258	1.00	0.00
ATOM	828	N2	GUA	79	1.006	-5.566	8.025	1.00	0.00
ATOM	829	N3	GUA	79	2.598	-6.487	9.429	1.00	0.00
ATOM	830	C4	GUA	79	2.890	-6.744	10.735	1.00	0.00
ATOM	831	C3'	GUA	79	7.442	-8.426	10.287	1.00	0.00
ATOM	832	C2'	GUA	79	6.435	-7.371	10.765	1.00	0.00
ATOM	833	O3'	GUA	79	7.920	-8.225	8.967	1.00	0.00
ATOM	834	P	GUA	80	8.821	-6.955	8.543	1.00	0.00
ATOM	835	OP1	GUA	80	9.646	-7.342	7.377	1.00	0.00
ATOM	836	OP2	GUA	80	9.466	-6.396	9.752	1.00	0.00
ATOM	837	O5'	GUA	80	7.697	-5.917	8.037	1.00	0.00
ATOM	838	C5'	GUA	80	6.919	-6.199	6.889	1.00	0.00
ATOM	839	C4'	GUA	80	5.861	-5.113	6.680	1.00	0.00
ATOM	840	O4'	GUA	80	5.005	-5.051	7.807	1.00	0.00
ATOM	841	C1'	GUA	80	4.668	-3.703	8.040	1.00	0.00
ATOM	842	N9	GUA	80	4.158	-3.515	9.413	1.00	0.00
ATOM	843	C8	GUA	80	4.758	-3.845	10.601	1.00	0.00
ATOM	844	N7	GUA	80	4.030	-3.602	11.653	1.00	0.00
ATOM	845	C5	GUA	80	2.855	-3.072	11.130	1.00	0.00
ATOM	846	C6	GUA	80	1.660	-2.653	11.790	1.00	0.00
ATOM	847	O6	GUA	80	1.409	-2.660	12.993	1.00	0.00
ATOM	848	N1	GUA	80	0.686	-2.227	10.896	1.00	0.00
ATOM	849	C2	GUA	80	0.833	-2.200	9.527	1.00	0.00
ATOM	850	N2	GUA	80	-0.205	-1.774	8.803	1.00	0.00
ATOM	851	N3	GUA	80	1.957	-2.584	8.903	1.00	0.00
ATOM	852	C4	GUA	80	2.925	-3.015	9.758	1.00	0.00
ATOM	853	C3'	GUA	80	6.465	-3.707	6.533	1.00	0.00
ATOM	854	C2'	GUA	80	6.012	-3.014	7.814	1.00	0.00

(99)

特開2003-135087

195				196					
ATOM	855	O3'	GUA	80	5.919	-3.045	5.409	1.00	0.00
ATOM	856	O5'	CYT	81	-7.768	1.536	13.692	1.00	0.00
ATOM	857	C5'	CYT	81	-7.403	2.264	12.537	1.00	0.00
ATOM	858	C4'	CYT	81	-6.497	1.439	11.615	1.00	0.00
ATOM	859	O4'	CYT	81	-5.353	0.970	12.297	1.00	0.00
ATOM	860	C1'	CYT	81	-4.786	-0.037	11.486	1.00	0.00
ATOM	861	N1	CYT	81	-3.821	-0.877	12.235	1.00	0.00
ATOM	862	C6	CYT	81	-4.128	-1.320	13.498	1.00	0.00
ATOM	863	C5	CYT	81	-3.302	-2.144	14.180	1.00	0.00
ATOM	864	C4	CYT	81	-2.079	-2.522	13.531	1.00	0.00
ATOM	865	N4	CYT	81	-1.205	-3.320	14.146	1.00	0.00
ATOM	866	N3	CYT	81	-1.795	-2.102	12.292	1.00	0.00
ATOM	867	C2	CYT	81	-2.648	-1.293	11.607	1.00	0.00
ATOM	868	O2	CYT	81	-2.371	-0.955	10.458	1.00	0.00
ATOM	869	C3'	CYT	81	-7.150	0.168	11.051	1.00	0.00
ATOM	870	C2'	CYT	81	-6.011	-0.853	11.095	1.00	0.00
ATOM	871	O3'	CYT	81	-7.638	0.419	9.744	1.00	0.00
ATOM	872	P	CYT	82	-8.342	-0.727	8.846	1.00	0.00
ATOM	873	OP1	CYT	82	-8.795	-1.808	9.749	1.00	0.00
ATOM	874	OP2	CYT	82	-9.307	-0.071	7.937	1.00	0.00
ATOM	875	O5'	CYT	82	-7.117	-1.297	7.962	1.00	0.00
ATOM	876	C5'	CYT	82	-6.477	-0.497	6.982	1.00	0.00
ATOM	877	C4'	CYT	82	-5.341	-1.282	6.312	1.00	0.00
ATOM	878	O4'	CYT	82	-4.400	-1.689	7.288	1.00	0.00
ATOM	879	C1'	CYT	82	-3.950	-3.004	7.030	1.00	0.00
ATOM	880	N1	CYT	82	-3.625	-3.637	8.334	1.00	0.00
ATOM	881	C6	CYT	82	-4.556	-3.587	9.336	1.00	0.00
ATOM	882	C5	CYT	82	-4.321	-4.096	10.560	1.00	0.00
ATOM	883	C4	CYT	82	-3.042	-4.708	10.770	1.00	0.00
ATOM	884	N4	CYT	82	-2.765	-5.278	11.942	1.00	0.00
ATOM	885	N3	CYT	82	-2.129	-4.765	9.787	1.00	0.00
ATOM	886	C2	CYT	82	-2.387	-4.246	8.551	1.00	0.00
ATOM	887	O2	CYT	82	-1.544	-4.334	7.660	1.00	0.00
ATOM	888	C3'	CYT	82	-5.831	-2.557	5.610	1.00	0.00
ATOM	889	C2'	CYT	82	-5.172	-3.679	6.407	1.00	0.00
ATOM	890	O3'	CYT	82	-5.431	-2.522	4.248	1.00	0.00
ATOM	891	P	CYT	83	-5.848	-3.667	3.186	1.00	0.00
ATOM	892	OP1	CYT	83	-5.922	-3.047	1.845	1.00	0.00
ATOM	893	OP2	CYT	83	-7.011	-4.409	3.722	1.00	0.00
ATOM	894	O5'	CYT	83	-4.573	-4.652	3.215	1.00	0.00
ATOM	895	C5'	CYT	83	-3.335	-4.266	2.645	1.00	0.00
ATOM	896	C4'	CYT	83	-2.266	-5.319	2.951	1.00	0.00
ATOM	897	O4'	CYT	83	-2.192	-5.506	4.348	1.00	0.00
ATOM	898	C1'	CYT	83	-1.822	-6.836	4.627	1.00	0.00
ATOM	899	N1	CYT	83	-2.324	-7.178	5.982	1.00	0.00
ATOM	900	C6	CYT	83	-3.633	-6.926	6.295	1.00	0.00
ATOM	901	C5	CYT	83	-4.115	-7.101	7.540	1.00	0.00
ATOM	902	C4	CYT	83	-3.192	-7.572	8.533	1.00	0.00
ATOM	903	N4	CYT	83	-3.593	-7.733	9.796	1.00	0.00
ATOM	904	N3	CYT	83	-1.915	-7.843	8.221	1.00	0.00

(100)

特開2003-135087

197				198					
ATOM	905	C2	CYT	83	-1.450	-7.668	6.949	1.00	0.00
ATOM	906	O2	CYT	83	-0.288	-7.953	6.672	1.00	0.00
ATOM	907	C3'	CYT	83	-2.570	-6.700	2.344	1.00	0.00
ATOM	908	C2'	CYT	83	-2.560	-7.633	3.554	1.00	0.00
ATOM	909	O3'	CYT	83	-1.579	-7.004	1.373	1.00	0.00
ATOM	910	P	THY	84	-1.543	-8.403	0.558	1.00	0.00
ATOM	911	OP1	THY	84	-0.769	-8.198	-0.686	1.00	0.00
ATOM	912	OP2	THY	84	-2.917	-8.951	0.491	1.00	0.00
ATOM	913	O5'	THY	84	-0.672	-9.343	1.534	1.00	0.00
ATOM	914	C5'	THY	84	0.675	-9.034	1.835	1.00	0.00
ATOM	915	C4'	THY	84	1.206	-9.974	2.920	1.00	0.00
ATOM	916	O4'	THY	84	0.429	-9.862	4.098	1.00	0.00
ATOM	917	C1'	THY	84	0.462	-11.102	4.770	1.00	0.00
ATOM	918	N1	THY	84	-0.619	-11.163	5.797	1.00	0.00
ATOM	919	C6	THY	84	-1.912	-10.845	5.454	1.00	0.00
ATOM	920	C5	THY	84	-2.886	-10.759	6.392	1.00	0.00
ATOM	921	C7	THY	84	-4.276	-10.427	5.884	1.00	0.00
ATOM	922	C4	THY	84	-2.610	-10.981	7.795	1.00	0.00
ATOM	923	O4	THY	84	-3.423	-10.860	8.705	1.00	0.00
ATOM	924	N3	THY	84	-1.306	-11.362	8.061	1.00	0.00
ATOM	925	C2	THY	84	-0.287	-11.469	7.122	1.00	0.00
ATOM	926	O2	THY	84	0.836	-11.820	7.472	1.00	0.00
ATOM	927	C3'	THY	84	1.158	-11.458	2.519	1.00	0.00
ATOM	928	C2'	THY	84	0.242	-12.055	3.596	1.00	0.00
ATOM	929	O3'	THY	84	2.481	-11.969	2.519	1.00	0.00
ATOM	930	P	ADE	85	2.839	-13.486	2.099	1.00	0.00
ATOM	931	OP1	ADE	85	1.864	-13.957	1.090	1.00	0.00
ATOM	932	OP2	ADE	85	4.284	-13.556	1.779	1.00	0.00
ATOM	933	O5'	ADE	85	2.592	-14.280	3.471	1.00	0.00
ATOM	934	C5'	ADE	85	3.370	-13.995	4.618	1.00	0.00
ATOM	935	C4'	ADE	85	2.770	-14.682	5.843	1.00	0.00
ATOM	936	O4'	ADE	85	1.460	-14.234	6.106	1.00	0.00
ATOM	937	C1'	ADE	85	0.820	-15.227	6.873	1.00	0.00
ATOM	938	N9	ADE	85	-0.633	-14.959	6.894	1.00	0.00
ATOM	939	C8	ADE	85	-1.439	-14.615	5.840	1.00	0.00
ATOM	940	N7	ADE	85	-2.639	-14.234	6.179	1.00	0.00
ATOM	941	C5	ADE	85	-2.634	-14.359	7.564	1.00	0.00
ATOM	942	C6	ADE	85	-3.594	-14.073	8.554	1.00	0.00
ATOM	943	N6	ADE	85	-4.792	-13.554	8.275	1.00	0.00
ATOM	944	N1	ADE	85	-3.283	-14.329	9.836	1.00	0.00
ATOM	945	C2	ADE	85	-2.092	-14.838	10.124	1.00	0.00
ATOM	946	N3	ADE	85	-1.089	-15.114	9.298	1.00	0.00
ATOM	947	C4	ADE	85	-1.428	-14.842	8.008	1.00	0.00
ATOM	948	C3'	ADE	85	2.635	-16.198	5.679	1.00	0.00
ATOM	949	C2'	ADE	85	1.176	-16.470	6.071	1.00	0.00
ATOM	950	O3'	ADE	85	3.581	-16.797	6.539	1.00	0.00
ATOM	951	P	ADE	86	3.818	-18.380	6.566	1.00	0.00
ATOM	952	OP1	ADE	86	5.253	-18.625	6.839	1.00	0.00
ATOM	953	OP2	ADE	86	3.181	-18.963	5.364	1.00	0.00
ATOM	954	O5'	ADE	86	2.968	-18.836	7.841	1.00	0.00

(101)

特開2003-135087

199				200			
ATOM	955	C5' ADE	86	3.411	-18.544	9.148	1.00 0.00
ATOM	956	C4' ADE	86	2.354	-19.017	10.137	1.00 0.00
ATOM	957	O4' ADE	86	1.136	-18.332	9.912	1.00 0.00
ATOM	958	C1' ADE	86	0.059	-19.193	10.197	1.00 0.00
ATOM	959	N9 ADE	86	-1.145	-18.701	9.488	1.00 0.00
ATOM	960	C8 ADE	86	-1.325	-18.549	8.134	1.00 0.00
ATOM	961	N7 ADE	86	-2.474	-18.038	7.795	1.00 0.00
ATOM	962	C5 ADE	86	-3.098	-17.814	9.015	1.00 0.00
ATOM	963	C6 ADE	86	-4.341	-17.250	9.357	1.00 0.00
ATOM	964	N6 ADE	86	-5.195	-16.809	8.432	1.00 0.00
ATOM	965	N1 ADE	86	-4.651	-17.106	10.658	1.00 0.00
ATOM	966	C2 ADE	86	-3.775	-17.514	11.573	1.00 0.00
ATOM	967	N3 ADE	86	-2.579	-18.067	11.385	1.00 0.00
ATOM	968	C4 ADE	86	-2.290	-18.191	10.058	1.00 0.00
ATOM	969	C3' ADE	86	2.059	-20.517	9.992	1.00 0.00
ATOM	970	C2' ADE	86	0.563	-20.532	9.655	1.00 0.00
ATOM	971	O3' ADE	86	2.445	-21.148	11.199	1.00 0.00
ATOM	972	P CYT	87	2.237	-22.721	11.476	1.00 0.00
ATOM	973	OP1 CYT	87	3.137	-23.107	12.585	1.00 0.00
ATOM	974	OP2 CYT	87	2.299	-23.450	10.186	1.00 0.00
ATOM	975	O5' CYT	87	0.743	-22.706	12.064	1.00 0.00
ATOM	976	C5' CYT	87	0.516	-22.002	13.269	1.00 0.00
ATOM	977	C4' CYT	87	-0.954	-21.704	13.534	1.00 0.00
ATOM	978	O4' CYT	87	-1.602	-21.120	12.429	1.00 0.00
ATOM	979	C1' CYT	87	-2.984	-21.347	12.592	1.00 0.00
ATOM	980	N1 CYT	87	-3.696	-21.138	11.306	1.00 0.00
ATOM	981	C6 CYT	87	-3.111	-21.530	10.129	1.00 0.00
ATOM	982	C5 CYT	87	-3.680	-21.264	8.933	1.00 0.00
ATOM	983	C4 CYT	87	-4.936	-20.570	8.949	1.00 0.00
ATOM	984	N4 CYT	87	-5.569	-20.272	7.815	1.00 0.00
ATOM	985	N3 CYT	87	-5.515	-20.210	10.102	1.00 0.00
ATOM	986	C2 CYT	87	-4.931	-20.488	11.301	1.00 0.00
ATOM	987	O2 CYT	87	-5.496	-20.167	12.344	1.00 0.00
ATOM	988	C3' CYT	87	-1.754	-22.956	13.879	1.00 0.00
ATOM	989	C2' CYT	87	-3.001	-22.811	13.008	1.00 0.00
ATOM	990	O3' CYT	87	-2.014	-22.887	15.268	1.00 0.00
ATOM	991	P CYT	88	-2.630	-24.107	16.107	1.00 0.00
ATOM	992	OP1 CYT	88	-2.255	-23.844	17.516	1.00 0.00
ATOM	993	OP2 CYT	88	-2.219	-25.371	15.463	1.00 0.00
ATOM	994	O5' CYT	88	-4.221	-23.913	15.928	1.00 0.00
ATOM	995	C5' CYT	88	-4.915	-22.862	16.579	1.00 0.00
ATOM	996	C4' CYT	88	-6.324	-22.684	16.002	1.00 0.00
ATOM	997	O4' CYT	88	-6.262	-22.366	14.628	1.00 0.00
ATOM	998	C1' CYT	88	-7.502	-22.697	14.040	1.00 0.00
ATOM	999	N1 CYT	88	-7.335	-22.859	12.576	1.00 0.00
ATOM	1000	C6 CYT	88	-6.248	-23.539	12.097	1.00 0.00
ATOM	1001	C5 CYT	88	-6.008	-23.664	10.778	1.00 0.00
ATOM	1002	C4 CYT	88	-6.971	-23.078	9.891	1.00 0.00
ATOM	1003	N4 CYT	88	-6.824	-23.166	8.570	1.00 0.00
ATOM	1004	N3 CYT	88	-8.063	-22.457	10.360	1.00 0.00

201				202					
ATOM	1005	C2	CYT	88	-8.285	-22.341	11.701	1.00	0.00
ATOM	1006	O2	CYT	88	-9.316	-21.813	12.109	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.216	-23.932	16.085	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.806	-24.046	14.679	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.197	-23.733	17.091	1.00	0.00
ATOM	1010	P	CYT	89	-9.351	-24.817	17.420	1.00	0.00
ATOM	1011	OP1	CYT	89	-9.745	-24.652	18.836	1.00	0.00
ATOM	1012	OP2	CYT	89	-8.903	-26.139	16.930	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.582	-24.333	16.492	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.251	-23.105	16.726	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.314	-22.860	15.648	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.704	-22.890	14.372	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.572	-23.473	13.424	1.00	0.00
ATOM	1018	N1	CYT	89	-11.741	-24.114	12.373	1.00	0.00
ATOM	1019	C6	CYT	89	-10.698	-24.917	12.748	1.00	0.00
ATOM	1020	C5	CYT	89	-9.815	-25.403	11.853	1.00	0.00
ATOM	1021	C4	CYT	89	-10.024	-25.046	10.478	1.00	0.00
ATOM	1022	N4	CYT	89	-9.172	-25.461	9.539	1.00	0.00
ATOM	1023	N3	CYT	89	-11.076	-24.303	10.105	1.00	0.00
ATOM	1024	C2	CYT	89	-11.966	-23.833	11.028	1.00	0.00
ATOM	1025	O2	CYT	89	-12.948	-23.194	10.664	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.420	-23.928	15.629	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.317	-24.529	14.232	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.675	-23.311	15.880	1.00	0.00
ATOM	1029	P	THY	90	-16.064	-24.141	15.977	1.00	0.00
ATOM	1030	OP1	THY	90	-17.013	-23.353	16.795	1.00	0.00
ATOM	1031	OP2	THY	90	-15.750	-25.535	16.358	1.00	0.00
ATOM	1032	O5'	THY	90	-16.605	-24.148	14.456	1.00	0.00
ATOM	1033	C5'	THY	90	-17.046	-22.958	13.827	1.00	0.00
ATOM	1034	C4'	THY	90	-17.286	-23.194	12.331	1.00	0.00
ATOM	1035	O4'	THY	90	-16.110	-23.711	11.740	1.00	0.00
ATOM	1036	C1'	THY	90	-16.458	-24.594	10.699	1.00	0.00
ATOM	1037	N1	THY	90	-15.311	-25.505	10.451	1.00	0.00
ATOM	1038	C6	THY	90	-14.779	-26.222	11.494	1.00	0.00
ATOM	1039	C5	THY	90	-13.660	-26.966	11.340	1.00	0.00
ATOM	1040	C7	THY	90	-13.183	-27.743	12.552	1.00	0.00
ATOM	1041	C4	THY	90	-12.959	-27.015	10.078	1.00	0.00
ATOM	1042	O4	THY	90	-11.910	-27.621	9.882	1.00	0.00
ATOM	1043	N3	THY	90	-13.565	-26.290	9.060	1.00	0.00
ATOM	1044	C2	THY	90	-14.741	-25.562	9.178	1.00	0.00
ATOM	1045	O2	THY	90	-15.239	-25.028	8.192	1.00	0.00
ATOM	1046	C3'	THY	90	-18.402	-24.209	12.024	1.00	0.00
ATOM	1047	C2'	THY	90	-17.661	-25.330	11.290	1.00	0.00
ATOM	1048	O3'	THY	90	-19.388	-23.578	11.223	1.00	0.00
ATOM	1049	P	ADE	91	-20.770	-24.307	10.805	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.112	-25.300	11.847	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.749	-23.261	10.438	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.359	-25.103	9.468	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.129	-24.423	8.251	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.528	-25.372	7.209	1.00	0.00

(103)

特開2003-135087

203

204

ATOM	1055	O4'	ADE	91	-18.271	-25.864	7.619	1.00	0.00
ATOM	1056	C1'	ADE	91	-17.992	-26.985	6.813	1.00	0.00
ATOM	1057	N9	ADE	91	-16.903	-27.775	7.416	1.00	0.00
ATOM	1058	C8	ADE	91	-16.770	-28.150	8.727	1.00	0.00
ATOM	1059	N7	ADE	91	-15.645	-28.756	8.999	1.00	0.00
ATOM	1060	C5	ADE	91	-15.002	-28.810	7.764	1.00	0.00
ATOM	1061	C6	ADE	91	-13.752	-29.313	7.347	1.00	0.00
ATOM	1062	N6	ADE	91	-12.866	-29.847	8.189	1.00	0.00
ATOM	1063	N1	ADE	91	-13.442	-29.262	6.038	1.00	0.00
ATOM	1064	C2	ADE	91	-14.313	-28.727	5.187	1.00	0.00
ATOM	1065	N3	ADE	91	-15.492	-28.178	5.456	1.00	0.00
ATOM	1066	C4	ADE	91	-15.782	-28.252	6.783	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.365	-26.630	6.935	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.310	-27.742	6.867	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.088	-26.421	5.732	1.00	0.00
ATOM	1070	P	ADE	92	-21.998	-27.555	5.030	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.987	-26.880	4.161	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.453	-28.508	6.065	1.00	0.00
ATOM	1073	O5'	ADE	92	-20.933	-28.307	4.080	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.270	-27.613	3.039	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.202	-28.500	2.390	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.238	-28.894	3.352	1.00	0.00
ATOM	1077	C1'	ADE	92	-17.862	-30.232	3.108	1.00	0.00
ATOM	1078	N9	ADE	92	-17.272	-30.821	4.332	1.00	0.00
ATOM	1079	C8	ADE	92	-17.824	-30.887	5.586	1.00	0.00
ATOM	1080	N7	ADE	92	-17.039	-31.385	6.500	1.00	0.00
ATOM	1081	C5	ADE	92	-15.878	-31.680	5.797	1.00	0.00
ATOM	1082	C6	ADE	92	-14.641	-32.229	6.188	1.00	0.00
ATOM	1083	N6	ADE	92	-14.380	-32.552	7.456	1.00	0.00
ATOM	1084	N1	ADE	92	-13.686	-32.405	5.256	1.00	0.00
ATOM	1085	C2	ADE	92	-13.950	-32.054	3.999	1.00	0.00
ATOM	1086	N3	ADE	92	-15.066	-31.524	3.505	1.00	0.00
ATOM	1087	C4	ADE	92	-16.009	-31.354	4.470	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.775	-29.799	1.799	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.211	-30.853	2.756	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.296	-29.933	0.472	1.00	0.00
ATOM	1091	P	CYT	93	-19.779	-31.116	-0.513	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.875	-31.869	0.137	1.00	0.00
ATOM	1093	OP2	CYT	93	-19.973	-30.549	-1.866	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.480	-32.064	-0.544	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.316	-31.685	-1.256	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.212	-32.715	-1.005	1.00	0.00
ATOM	1097	O4'	CYT	93	-15.985	-32.808	0.382	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.514	-34.098	0.692	1.00	0.00
ATOM	1099	N1	CYT	93	-15.823	-34.390	2.114	1.00	0.00
ATOM	1100	C6	CYT	93	-17.050	-34.060	2.632	1.00	0.00
ATOM	1101	C5	CYT	93	-17.352	-34.267	3.932	1.00	0.00
ATOM	1102	C4	CYT	93	-16.320	-34.836	4.751	1.00	0.00
ATOM	1103	N4	CYT	93	-16.491	-34.969	6.067	1.00	0.00
ATOM	1104	N3	CYT	93	-15.134	-35.183	4.234	1.00	0.00

(104)

特開2003-135087

205

206

ATOM	1105	C2	CYT	93	-14.855	-34.986	2.916	1.00	0.00
ATOM	1106	O2	CYT	93	-13.765	-35.329	2.464	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.600	-34.133	-1.448	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.323	-35.011	-0.230	1.00	0.00
ATOM	1109	O3'	CYT	93	-15.813	-34.553	-2.543	1.00	0.00

END

HEADER 000000

REMARK	0.00528	1.66279	0.02516	0.01714	2.13930	1.68741
	0.00000					

REMARK	2.25263	0.39320	0.41050	0.84501	0.60392
--------	---------	---------	---------	---------	---------

REMARK	0.00941	0.01220	0.00449	0.01361	0.00700
--------	---------	---------	---------	---------	---------

REMARK	118	117	0	1	0	0
0						

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.03215	0.20317	0.03211	0.03226	0.20317	0.09450
--------	---------	---------	---------	---------	---------	---------

REMARK	1.92929	0.15700
--------	---------	---------

REMARK	1	1	0	0	0	0
0						

ATOM	1	N	GLU	1	-4.626	-26.690	35.260	1.00	0.00
ATOM	2	CA	GLU	1	-4.260	-26.578	33.836	1.00	0.00
ATOM	3	CB	GLU	1	-5.456	-26.988	32.957	1.00	0.00
ATOM	4	CG	GLU	1	-5.122	-27.198	31.469	1.00	0.00
ATOM	5	CD	GLU	1	-4.937	-25.901	30.688	1.00	0.00
ATOM	6	OE1	GLU	1	-4.045	-25.881	29.813	1.00	0.00
ATOM	7	OE2	GLU	1	-5.658	-24.930	31.001	1.00	0.00
ATOM	8	C	GLU	1	-3.771	-25.154	33.563	1.00	0.00
ATOM	9	O	GLU	1	-4.167	-24.228	34.268	1.00	0.00
ATOM	10	N	LYS	2	-2.909	-24.985	32.555	1.00	0.00
ATOM	11	CA	LYS	2	-2.367	-23.702	32.145	1.00	0.00
ATOM	12	CB	LYS	2	-1.236	-23.278	33.097	1.00	0.00
ATOM	13	CG	LYS	2	-0.586	-21.936	32.724	1.00	0.00
ATOM	14	CD	LYS	2	-1.567	-20.755	32.616	1.00	0.00
ATOM	15	CE	LYS	2	-2.455	-20.547	33.852	1.00	0.00
ATOM	16	NZ	LYS	2	-1.666	-20.327	35.079	1.00	0.00
ATOM	17	C	LYS	2	-1.883	-23.842	30.704	1.00	0.00
ATOM	18	O	LYS	2	-0.982	-24.634	30.434	1.00	0.00
ATOM	19	N	HIS	3	-2.478	-23.079	29.782	1.00	0.00
ATOM	20	CA	HIS	3	-2.115	-23.118	28.374	1.00	0.00
ATOM	21	CB	HIS	3	-3.068	-22.233	27.559	1.00	0.00
ATOM	22	CG	HIS	3	-4.523	-22.637	27.588	1.00	0.00
ATOM	23	ND1	HIS	3	-4.997	-23.769	28.237	1.00	0.00
ATOM	24	CE1	HIS	3	-6.327	-23.810	28.055	1.00	0.00
ATOM	25	NE2	HIS	3	-6.781	-22.786	27.328	1.00	0.00
ATOM	26	CD2	HIS	3	-5.636	-22.050	27.037	1.00	0.00

207					208				
ATOM	27	C	HIS	3	-0.669	-22.654	28.175	1.00	0.00
ATOM	28	O	HIS	3	-0.164	-21.830	28.937	1.00	0.00
ATOM	29	N	ARG	4	-0.016	-23.190	27.138	1.00	0.00
ATOM	30	CA	ARG	4	1.353	-22.878	26.747	1.00	0.00
ATOM	31	CB	ARG	4	2.188	-24.167	26.674	1.00	0.00
ATOM	32	CG	ARG	4	2.903	-24.535	27.982	1.00	0.00
ATOM	33	CD	ARG	4	1.964	-24.918	29.131	1.00	0.00
ATOM	34	NE	ARG	4	2.735	-25.500	30.240	1.00	0.00
ATOM	35	CZ	ARG	4	2.230	-26.204	31.268	1.00	0.00
ATOM	36	NH1	ARG	4	0.908	-26.332	31.428	1.00	0.00
ATOM	37	NH2	ARG	4	3.062	-26.785	32.141	1.00	0.00
ATOM	38	C	ARG	4	1.329	-22.198	25.376	1.00	0.00
ATOM	39	O	ARG	4	0.369	-22.343	24.617	1.00	0.00
ATOM	40	N	ALA	5	2.397	-21.461	25.053	1.00	0.00
ATOM	41	CA	ALA	5	2.526	-20.780	23.774	1.00	0.00
ATOM	42	CB	ALA	5	3.682	-19.779	23.835	1.00	0.00
ATOM	43	C	ALA	5	2.745	-21.814	22.667	1.00	0.00
ATOM	44	O	ALA	5	3.411	-22.826	22.885	1.00	0.00
ATOM	45	N	ARG	6	2.182	-21.555	21.483	1.00	0.00
ATOM	46	CA	ARG	6	2.274	-22.434	20.321	1.00	0.00
ATOM	47	CB	ARG	6	1.029	-22.227	19.450	1.00	0.00
ATOM	48	CG	ARG	6	-0.205	-22.873	20.100	1.00	0.00
ATOM	49	CD	ARG	6	-1.438	-21.970	20.006	1.00	0.00
ATOM	50	NE	ARG	6	-1.362	-20.883	20.996	1.00	0.00
ATOM	51	CZ	ARG	6	-1.548	-19.571	20.776	1.00	0.00
ATOM	52	NH1	ARG	6	-1.417	-18.705	21.785	1.00	0.00
ATOM	53	NH2	ARG	6	-1.862	-19.089	19.570	1.00	0.00
ATOM	54	C	ARG	6	3.562	-22.229	19.517	1.00	0.00
ATOM	55	O	ARG	6	3.977	-23.149	18.818	1.00	0.00
ATOM	56	N	LYS	7	4.189	-21.046	19.612	1.00	0.00
ATOM	57	CA	LYS	7	5.419	-20.679	18.912	1.00	0.00
ATOM	58	CB	LYS	7	6.610	-21.608	19.231	1.00	0.00
ATOM	59	CG	LYS	7	7.154	-21.539	20.665	1.00	0.00
ATOM	60	CD	LYS	7	6.178	-22.111	21.701	1.00	0.00
ATOM	61	CE	LYS	7	6.850	-22.422	23.043	1.00	0.00
ATOM	62	NZ	LYS	7	7.741	-23.594	22.961	1.00	0.00
ATOM	63	C	LYS	7	5.169	-20.614	17.402	1.00	0.00
ATOM	64	O	LYS	7	5.385	-21.595	16.693	1.00	0.00
ATOM	65	N	ARG	8	4.721	-19.453	16.911	1.00	0.00
ATOM	66	CA	ARG	8	4.451	-19.239	15.495	1.00	0.00
ATOM	67	CB	ARG	8	3.834	-17.849	15.296	1.00	0.00
ATOM	68	CG	ARG	8	3.687	-17.494	13.808	1.00	0.00
ATOM	69	CD	ARG	8	2.461	-16.607	13.565	1.00	0.00
ATOM	70	NE	ARG	8	1.234	-17.400	13.682	1.00	0.00
ATOM	71	CZ	ARG	8	-0.007	-16.990	13.379	1.00	0.00
ATOM	72	NH1	ARG	8	-1.034	-17.822	13.565	1.00	0.00
ATOM	73	NH2	ARG	8	-0.236	-15.769	12.889	1.00	0.00
ATOM	74	C	ARG	8	5.737	-19.425	14.683	1.00	0.00
ATOM	75	O	ARG	8	6.682	-18.653	14.834	1.00	0.00
ATOM	76	N	GLN	9	5.757	-20.451	13.827	1.00	0.00

209

210

ATOM	77	CA	GLN	9	6.868	-20.810	12.963	1.00	0.00
ATOM	78	CB	GLN	9	7.228	-22.287	13.167	1.00	0.00
ATOM	79	CG	GLN	9	8.450	-22.675	12.322	1.00	0.00
ATOM	80	CD	GLN	9	8.683	-24.179	12.343	1.00	0.00
ATOM	81	OE1	GLN	9	8.069	-24.909	11.568	1.00	0.00
ATOM	82	NE2	GLN	9	9.575	-24.647	13.217	1.00	0.00
ATOM	83	C	GLN	9	6.479	-20.534	11.513	1.00	0.00
ATOM	84	O	GLN	9	5.880	-21.384	10.850	1.00	0.00
ATOM	85	N	ALA	10	6.845	-19.353	11.010	1.00	0.00
ATOM	86	CA	ALA	10	6.575	-18.996	9.627	1.00	0.00
ATOM	87	CB	ALA	10	6.957	-17.536	9.373	1.00	0.00
ATOM	88	C	ALA	10	7.338	-19.946	8.703	1.00	0.00
ATOM	89	O	ALA	10	8.366	-20.507	9.085	1.00	0.00
ATOM	90	N	TRP	11	6.824	-20.139	7.489	1.00	0.00
ATOM	91	CA	TRP	11	7.434	-21.025	6.512	1.00	0.00
ATOM	92	CB	TRP	11	6.419	-21.329	5.417	1.00	0.00
ATOM	93	CG	TRP	11	5.310	-22.256	5.806	1.00	0.00
ATOM	94	CD1	TRP	11	4.325	-22.004	6.696	1.00	0.00
ATOM	95	NE1	TRP	11	3.481	-23.091	6.787	1.00	0.00
ATOM	96	CE2	TRP	11	3.891	-24.106	5.947	1.00	0.00
ATOM	97	CZ2	TRP	11	3.384	-25.383	5.671	1.00	0.00
ATOM	98	CH2	TRP	11	4.049	-26.198	4.746	1.00	0.00
ATOM	99	CZ3	TRP	11	5.206	-25.732	4.102	1.00	0.00
ATOM	100	CE3	TRP	11	5.703	-24.447	4.381	1.00	0.00
ATOM	101	CD2	TRP	11	5.061	-23.601	5.311	1.00	0.00
ATOM	102	C	TRP	11	8.705	-20.402	5.939	1.00	0.00
ATOM	103	O	TRP	11	8.895	-19.187	6.001	1.00	0.00
ATOM	104	N	LEU	12	9.581	-21.247	5.392	1.00	0.00
ATOM	105	CA	LEU	12	10.851	-20.829	4.827	1.00	0.00
ATOM	106	CB	LEU	12	11.859	-20.491	5.943	1.00	0.00
ATOM	107	CG	LEU	12	12.450	-21.698	6.700	1.00	0.00
ATOM	108	CD1	LEU	12	13.476	-21.182	7.716	1.00	0.00
ATOM	109	CD2	LEU	12	11.397	-22.532	7.442	1.00	0.00
ATOM	110	C	LEU	12	11.408	-21.862	3.868	1.00	0.00
ATOM	111	O	LEU	12	10.969	-23.012	3.853	1.00	0.00
ATOM	112	N	TRP	13	12.395	-21.414	3.086	1.00	0.00
ATOM	113	CA	TRP	13	13.162	-22.114	2.121	1.00	0.00
ATOM	114	CB	TRP	13	14.629	-21.952	2.537	1.00	0.00
ATOM	115	CG	TRP	13	15.318	-21.663	1.294	1.00	0.00
ATOM	116	CD1	TRP	13	15.222	-20.464	0.728	1.00	0.00
ATOM	117	NE1	TRP	13	15.907	-20.467	-0.441	1.00	0.00
ATOM	118	CE2	TRP	13	16.494	-21.704	-0.697	1.00	0.00
ATOM	119	CZ2	TRP	13	17.278	-22.238	-1.735	1.00	0.00
ATOM	120	CH2	TRP	13	17.688	-23.585	-1.662	1.00	0.00
ATOM	121	CZ3	TRP	13	17.312	-24.383	-0.561	1.00	0.00
ATOM	122	CE3	TRP	13	16.533	-23.837	0.469	1.00	0.00
ATOM	123	CD2	TRP	13	16.113	-22.496	0.425	1.00	0.00
ATOM	124	C	TRP	13	12.873	-23.557	1.797	1.00	0.00
ATOM	125	O	TRP	13	12.358	-23.866	0.732	1.00	0.00
ATOM	126	N	GLU	14	13.285	-24.428	2.702	1.00	0.00

(107)

特開2003-135087

211					212				
ATOM	127	CA	GLU	14	13.188	-25.856	2.478	1.00	0.00
ATOM	128	CB	GLU	14	14.137	-26.622	3.409	1.00	0.00
ATOM	129	CG	GLU	14	14.326	-28.090	2.988	1.00	0.00
ATOM	130	CD	GLU	14	13.113	-28.979	3.272	1.00	0.00
ATOM	131	OE1	GLU	14	12.879	-29.908	2.466	1.00	0.00
ATOM	132	OE2	GLU	14	12.446	-28.722	4.296	1.00	0.00
ATOM	133	C	GLU	14	11.731	-26.290	2.502	1.00	0.00
ATOM	134	O	GLU	14	11.312	-27.033	1.619	1.00	0.00
ATOM	135	N	GLU	15	10.951	-25.810	3.475	1.00	0.00
ATOM	136	CA	GLU	15	9.548	-26.173	3.535	1.00	0.00
ATOM	137	CB	GLU	15	8.873	-25.657	4.814	1.00	0.00
ATOM	138	CG	GLU	15	9.486	-26.198	6.112	1.00	0.00
ATOM	139	CD	GLU	15	8.546	-25.966	7.294	1.00	0.00
ATOM	140	OE1	GLU	15	8.265	-24.784	7.594	1.00	0.00
ATOM	141	OE2	GLU	15	8.070	-26.973	7.868	1.00	0.00
ATOM	142	C	GLU	15	8.838	-25.680	2.271	1.00	0.00
ATOM	143	O	GLU	15	8.112	-26.440	1.633	1.00	0.00
ATOM	144	N	ASP	16	9.056	-24.414	1.899	1.00	0.00
ATOM	145	CA	ASP	16	8.443	-23.820	0.715	1.00	0.00
ATOM	146	CB	ASP	16	8.792	-22.327	0.643	1.00	0.00
ATOM	147	CG	ASP	16	8.027	-21.504	1.667	1.00	0.00
ATOM	148	OD1	ASP	16	6.854	-21.842	1.929	1.00	0.00
ATOM	149	OD2	ASP	16	8.583	-20.492	2.144	1.00	0.00
ATOM	150	C	ASP	16	8.857	-24.523	-0.578	1.00	0.00
ATOM	151	O	ASP	16	8.007	-25.003	-1.323	1.00	0.00
ATOM	152	N	LYS	17	10.161	-24.567	-0.853	1.00	0.00
ATOM	153	CA	LYS	17	10.752	-25.173	-2.040	1.00	0.00
ATOM	154	CB	LYS	17	12.281	-25.038	-1.942	1.00	0.00
ATOM	155	CG	LYS	17	13.034	-25.517	-3.187	1.00	0.00
ATOM	156	CD	LYS	17	14.541	-25.346	-2.941	1.00	0.00
ATOM	157	CE	LYS	17	15.397	-25.843	-4.112	1.00	0.00
ATOM	158	NZ	LYS	17	15.224	-25.018	-5.323	1.00	0.00
ATOM	159	C	LYS	17	10.304	-26.630	-2.183	1.00	0.00
ATOM	160	O	LYS	17	9.853	-27.043	-3.254	1.00	0.00
ATOM	161	N	ASN	18	10.426	-27.408	-1.104	1.00	0.00
ATOM	162	CA	ASN	18	10.044	-28.810	-1.100	1.00	0.00
ATOM	163	CB	ASN	18	10.524	-29.475	0.194	1.00	0.00
ATOM	164	CG	ASN	18	10.485	-30.998	0.146	1.00	0.00
ATOM	165	OD1	ASN	18	9.921	-31.592	-0.768	1.00	0.00
ATOM	166	ND2	ASN	18	11.110	-31.638	1.133	1.00	0.00
ATOM	167	C	ASN	18	8.539	-28.951	-1.338	1.00	0.00
ATOM	168	O	ASN	18	8.133	-29.770	-2.157	1.00	0.00
ATOM	169	N	LEU	19	7.704	-28.149	-0.660	1.00	0.00
ATOM	170	CA	LEU	19	6.256	-28.186	-0.846	1.00	0.00
ATOM	171	CB	LEU	19	5.567	-27.179	0.087	1.00	0.00
ATOM	172	CG	LEU	19	4.039	-27.144	-0.085	1.00	0.00
ATOM	173	CD1	LEU	19	3.432	-28.525	0.170	1.00	0.00
ATOM	174	CD2	LEU	19	3.430	-26.120	0.879	1.00	0.00
ATOM	175	C	LEU	19	5.908	-27.911	-2.310	1.00	0.00
ATOM	176	O	LEU	19	5.113	-28.638	-2.903	1.00	0.00

213					214				
ATOM	177	N	ARG	20	6.514	-26.869	-2.892	1.00	0.00
ATOM	178	CA	ARG	20	6.316	-26.480	-4.280	1.00	0.00
ATOM	179	CB	ARG	20	7.241	-25.300	-4.611	1.00	0.00
ATOM	180	CG	ARG	20	6.807	-24.570	-5.885	1.00	0.00
ATOM	181	CD	ARG	20	7.825	-23.475	-6.236	1.00	0.00
ATOM	182	NE	ARG	20	7.195	-22.356	-6.952	1.00	0.00
ATOM	183	CZ	ARG	20	6.549	-21.335	-6.359	1.00	0.00
ATOM	184	NH1	ARG	20	6.406	-21.301	-5.028	1.00	0.00
ATOM	185	NH2	ARG	20	6.045	-20.342	-7.102	1.00	0.00
ATOM	186	C	ARG	20	6.587	-27.688	-5.178	1.00	0.00
ATOM	187	O	ARG	20	5.779	-28.013	-6.050	1.00	0.00
ATOM	188	N	SER	21	7.719	-28.367	-4.942	1.00	0.00
ATOM	189	CA	SER	21	8.078	-29.561	-5.692	1.00	0.00
ATOM	190	CB	SER	21	9.458	-30.080	-5.270	1.00	0.00
ATOM	191	OG	SER	21	9.907	-31.043	-6.205	1.00	0.00
ATOM	192	C	SER	21	6.993	-30.623	-5.499	1.00	0.00
ATOM	193	O	SER	21	6.536	-31.207	-6.473	1.00	0.00
ATOM	194	N	GLY	22	6.573	-30.858	-4.251	1.00	0.00
ATOM	195	CA	GLY	22	5.540	-31.813	-3.883	1.00	0.00
ATOM	196	C	GLY	22	4.276	-31.616	-4.716	1.00	0.00
ATOM	197	O	GLY	22	3.773	-32.571	-5.305	1.00	0.00
ATOM	198	N	VAL	23	3.769	-30.379	-4.779	1.00	0.00
ATOM	199	CA	VAL	23	2.583	-30.060	-5.561	1.00	0.00
ATOM	200	CB	VAL	23	2.141	-28.605	-5.326	1.00	0.00
ATOM	201	CG1	VAL	23	0.953	-28.252	-6.232	1.00	0.00
ATOM	202	CG2	VAL	23	1.700	-28.422	-3.872	1.00	0.00
ATOM	203	C	VAL	23	2.849	-30.342	-7.039	1.00	0.00
ATOM	204	O	VAL	23	2.011	-30.930	-7.713	1.00	0.00
ATOM	205	N	ARG	24	4.012	-29.937	-7.557	1.00	0.00
ATOM	206	CA	ARG	24	4.348	-30.180	-8.953	1.00	0.00
ATOM	207	CB	ARG	24	5.645	-29.431	-9.296	1.00	0.00
ATOM	208	CG	ARG	24	6.038	-29.489	-10.782	1.00	0.00
ATOM	209	CD	ARG	24	4.927	-29.050	-11.746	1.00	0.00
ATOM	210	NE	ARG	24	4.366	-27.741	-11.379	1.00	0.00
ATOM	211	CZ	ARG	24	3.249	-27.209	-11.907	1.00	0.00
ATOM	212	NH1	ARG	24	2.583	-27.852	-12.876	1.00	0.00
ATOM	213	NH2	ARG	24	2.800	-26.027	-11.463	1.00	0.00
ATOM	214	C	ARG	24	4.444	-31.684	-9.260	1.00	0.00
ATOM	215	O	ARG	24	4.135	-32.103	-10.373	1.00	0.00
ATOM	216	N	LYS	25	4.877	-32.490	-8.285	1.00	0.00
ATOM	217	CA	LYS	25	5.058	-33.930	-8.409	1.00	0.00
ATOM	218	CB	LYS	25	5.999	-34.426	-7.298	1.00	0.00
ATOM	219	CG	LYS	25	7.420	-33.852	-7.397	1.00	0.00
ATOM	220	CD	LYS	25	8.418	-34.895	-7.912	1.00	0.00
ATOM	221	CE	LYS	25	9.827	-34.307	-8.063	1.00	0.00
ATOM	222	NZ	LYS	25	10.350	-33.762	-6.794	1.00	0.00
ATOM	223	C	LYS	25	3.748	-34.719	-8.338	1.00	0.00
ATOM	224	O	LYS	25	3.487	-35.541	-9.214	1.00	0.00
ATOM	225	N	TYR	26	2.955	-34.512	-7.277	1.00	0.00
ATOM	226	CA	TYR	26	1.729	-35.267	-7.016	1.00	0.00

215					216				
ATOM	227	CB	TYR	26	1.838	-35.862	-5.604	1.00	0.00
ATOM	228	CG	TYR	26	3.188	-36.499	-5.318	1.00	0.00
ATOM	229	CD1	TYR	26	3.622	-37.605	-6.072	1.00	0.00
ATOM	230	CE1	TYR	26	4.876	-38.187	-5.816	1.00	0.00
ATOM	231	CZ	TYR	26	5.703	-37.663	-4.806	1.00	0.00
ATOM	232	OH	TYR	26	6.920	-38.221	-4.552	1.00	0.00
ATOM	233	CE2	TYR	26	5.271	-36.560	-4.052	1.00	0.00
ATOM	234	CD2	TYR	26	4.018	-35.980	-4.308	1.00	0.00
ATOM	235	C	TYR	26	0.426	-34.484	-7.203	1.00	0.00
ATOM	236	O	TYR	26	-0.649	-35.047	-6.993	1.00	0.00
ATOM	237	N	GLY	27	0.495	-33.210	-7.603	1.00	0.00
ATOM	238	CA	GLY	27	-0.674	-32.370	-7.828	1.00	0.00
ATOM	239	C	GLY	27	-1.229	-31.785	-6.529	1.00	0.00
ATOM	240	O	GLY	27	-0.884	-32.229	-5.433	1.00	0.00
ATOM	241	N	GLU	28	-2.104	-30.780	-6.662	1.00	0.00
ATOM	242	CA	GLU	28	-2.752	-30.135	-5.528	1.00	0.00
ATOM	243	CB	GLU	28	-3.332	-28.776	-5.958	1.00	0.00
ATOM	244	CG	GLU	28	-3.737	-27.928	-4.743	1.00	0.00
ATOM	245	CD	GLU	28	-4.217	-26.527	-5.100	1.00	0.00
ATOM	246	OE1	GLU	28	-3.685	-25.936	-6.067	1.00	0.00
ATOM	247	OE2	GLU	28	-5.079	-26.007	-4.354	1.00	0.00
ATOM	248	C	GLU	28	-3.822	-31.093	-4.990	1.00	0.00
ATOM	249	O	GLU	28	-4.355	-31.910	-5.741	1.00	0.00
ATOM	250	N	GLY	29	-4.130	-31.009	-3.693	1.00	0.00
ATOM	251	CA	GLY	29	-5.115	-31.885	-3.074	1.00	0.00
ATOM	252	C	GLY	29	-4.595	-33.314	-2.998	1.00	0.00
ATOM	253	O	GLY	29	-5.319	-34.264	-3.281	1.00	0.00
ATOM	254	N	ASN	30	-3.325	-33.446	-2.603	1.00	0.00
ATOM	255	CA	ASN	30	-2.639	-34.719	-2.451	1.00	0.00
ATOM	256	CB	ASN	30	-2.029	-35.113	-3.804	1.00	0.00
ATOM	257	CG	ASN	30	-1.826	-36.615	-3.953	1.00	0.00
ATOM	258	OD1	ASN	30	-1.898	-37.373	-2.988	1.00	0.00
ATOM	259	ND2	ASN	30	-1.595	-37.059	-5.188	1.00	0.00
ATOM	260	C	ASN	30	-1.593	-34.555	-1.346	1.00	0.00
ATOM	261	O	ASN	30	-0.469	-35.054	-1.441	1.00	0.00
ATOM	262	N	TRP	31	-1.984	-33.824	-0.294	1.00	0.00
ATOM	263	CA	TRP	31	-1.147	-33.508	0.852	1.00	0.00
ATOM	264	CB	TRP	31	-1.810	-32.452	1.742	1.00	0.00
ATOM	265	CG	TRP	31	-2.477	-31.383	0.940	1.00	0.00
ATOM	266	CD1	TRP	31	-3.808	-31.193	0.821	1.00	0.00
ATOM	267	NE1	TRP	31	-4.059	-30.138	-0.029	1.00	0.00
ATOM	268	CE2	TRP	31	-2.882	-29.590	-0.497	1.00	0.00
ATOM	269	CZ2	TRP	31	-2.604	-28.531	-1.368	1.00	0.00
ATOM	270	CH2	TRP	31	-1.267	-28.222	-1.654	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.230	-28.964	-1.070	1.00	0.00
ATOM	272	CE3	TRP	31	-0.520	-30.027	-0.199	1.00	0.00
ATOM	273	CD2	TRP	31	-1.854	-30.367	0.109	1.00	0.00
ATOM	274	C	TRP	31	-0.726	-34.778	1.574	1.00	0.00
ATOM	275	O	TRP	31	0.365	-34.813	2.134	1.00	0.00
ATOM	276	N	SER	32	-1.554	-35.829	1.531	1.00	0.00

(110)

特開2003-135087

217					218				
ATOM	277	CA	SER	32	-1.220	-37.113	2.127	1.00	0.00
ATOM	278	CB	SER	32	-2.344	-38.123	1.865	1.00	0.00
ATOM	279	OG	SER	32	-3.575	-37.638	2.348	1.00	0.00
ATOM	280	C	SER	32	0.102	-37.620	1.536	1.00	0.00
ATOM	281	O	SER	32	1.064	-37.852	2.266	1.00	0.00
ATOM	282	N	LYS	33	0.155	-37.784	0.207	1.00	0.00
ATOM	283	CA	LYS	33	1.351	-38.254	-0.478	1.00	0.00
ATOM	284	CB	LYS	33	1.082	-38.487	-1.968	1.00	0.00
ATOM	285	CG	LYS	33	0.191	-39.720	-2.175	1.00	0.00
ATOM	286	CD	LYS	33	-0.036	-40.043	-3.659	1.00	0.00
ATOM	287	CE	LYS	33	1.019	-40.963	-4.290	1.00	0.00
ATOM	288	NZ	LYS	33	2.347	-40.334	-4.407	1.00	0.00
ATOM	289	C	LYS	33	2.505	-37.279	-0.274	1.00	0.00
ATOM	290	O	LYS	33	3.596	-37.709	0.095	1.00	0.00
ATOM	291	N	ILE	34	2.272	-35.981	-0.510	1.00	0.00
ATOM	292	CA	ILE	34	3.300	-34.958	-0.345	1.00	0.00
ATOM	293	CB	ILE	34	2.709	-33.552	-0.568	1.00	0.00
ATOM	294	CG2	ILE	34	3.704	-32.460	-0.151	1.00	0.00
ATOM	295	CG1	ILE	34	2.328	-33.370	-2.049	1.00	0.00
ATOM	296	CD1	ILE	34	1.393	-32.186	-2.311	1.00	0.00
ATOM	297	C	ILE	34	3.969	-35.107	1.025	1.00	0.00
ATOM	298	O	ILE	34	5.188	-35.206	1.091	1.00	0.00
ATOM	299	N	LEU	35	3.175	-35.138	2.101	1.00	0.00
ATOM	300	CA	LEU	35	3.637	-35.279	3.476	1.00	0.00
ATOM	301	CB	LEU	35	2.431	-35.148	4.418	1.00	0.00
ATOM	302	CG	LEU	35	2.764	-35.244	5.918	1.00	0.00
ATOM	303	CD1	LEU	35	3.814	-34.216	6.357	1.00	0.00
ATOM	304	CD2	LEU	35	1.477	-35.016	6.719	1.00	0.00
ATOM	305	C	LEU	35	4.377	-36.600	3.698	1.00	0.00
ATOM	306	O	LEU	35	5.385	-36.633	4.403	1.00	0.00
ATOM	307	N	LEU	36	3.886	-37.700	3.114	1.00	0.00
ATOM	308	CA	LEU	36	4.520	-39.000	3.275	1.00	0.00
ATOM	309	CB	LEU	36	3.651	-40.112	2.666	1.00	0.00
ATOM	310	CG	LEU	36	2.428	-40.461	3.532	1.00	0.00
ATOM	311	CD1	LEU	36	1.382	-41.194	2.685	1.00	0.00
ATOM	312	CD2	LEU	36	2.816	-41.357	4.716	1.00	0.00
ATOM	313	C	LEU	36	5.921	-38.997	2.664	1.00	0.00
ATOM	314	O	LEU	36	6.892	-39.295	3.361	1.00	0.00
ATOM	315	N	HIS	37	6.020	-38.670	1.373	1.00	0.00
ATOM	316	CA	HIS	37	7.276	-38.649	0.636	1.00	0.00
ATOM	317	CB	HIS	37	6.991	-38.456	-0.859	1.00	0.00
ATOM	318	CG	HIS	37	6.042	-39.478	-1.432	1.00	0.00
ATOM	319	ND1	HIS	37	6.292	-40.841	-1.404	1.00	0.00
ATOM	320	CE1	HIS	37	5.250	-41.450	-1.994	1.00	0.00
ATOM	321	NE2	HIS	37	4.316	-40.594	-2.417	1.00	0.00
ATOM	322	CD2	HIS	37	4.827	-39.351	-2.057	1.00	0.00
ATOM	323	C	HIS	37	8.232	-37.568	1.146	1.00	0.00
ATOM	324	O	HIS	37	9.391	-37.858	1.438	1.00	0.00
ATOM	325	N	TYR	38	7.747	-36.328	1.234	1.00	0.00
ATOM	326	CA	TYR	38	8.497	-35.160	1.662	1.00	0.00

219				220				
ATOM	327	CB	TYR	38	8.349	-34.067	0.597	1.00 0.00
ATOM	328	CG	TYR	38	8.795	-34.477	-0.797	1.00 0.00
ATOM	329	CD1	TYR	38	7.941	-34.291	-1.902	1.00 0.00
ATOM	330	CE1	TYR	38	8.357	-34.673	-3.191	1.00 0.00
ATOM	331	CZ	TYR	38	9.626	-35.245	-3.377	1.00 0.00
ATOM	332	OH	TYR	38	10.034	-35.619	-4.626	1.00 0.00
ATOM	333	CE2	TYR	38	10.481	-35.431	-2.279	1.00 0.00
ATOM	334	CD2	TYR	38	10.067	-35.048	-0.993	1.00 0.00
ATOM	335	C	TYR	38	7.973	-34.681	3.012	1.00 0.00
ATOM	336	O	TYR	38	6.847	-34.201	3.109	1.00 0.00
ATOM	337	N	LYS	39	8.790	-34.812	4.059	1.00 0.00
ATOM	338	CA	LYS	39	8.412	-34.392	5.398	1.00 0.00
ATOM	339	CB	LYS	39	9.006	-35.351	6.436	1.00 0.00
ATOM	340	CG	LYS	39	8.614	-36.788	6.059	1.00 0.00
ATOM	341	CD	LYS	39	8.595	-37.722	7.274	1.00 0.00
ATOM	342	CE	LYS	39	8.264	-39.166	6.871	1.00 0.00
ATOM	343	NZ	LYS	39	6.997	-39.275	6.120	1.00 0.00
ATOM	344	C	LYS	39	8.789	-32.926	5.619	1.00 0.00
ATOM	345	O	LYS	39	9.577	-32.361	4.863	1.00 0.00
ATOM	346	N	PHE	40	8.198	-32.321	6.652	1.00 0.00
ATOM	347	CA	PHE	40	8.382	-30.924	7.023	1.00 0.00
ATOM	348	CB	PHE	40	7.158	-30.140	6.536	1.00 0.00
ATOM	349	CG	PHE	40	6.832	-30.297	5.064	1.00 0.00
ATOM	350	CD1	PHE	40	5.945	-31.298	4.627	1.00 0.00
ATOM	351	CE1	PHE	40	5.651	-31.431	3.259	1.00 0.00
ATOM	352	CZ	PHE	40	6.240	-30.565	2.321	1.00 0.00
ATOM	353	CE2	PHE	40	7.128	-29.567	2.757	1.00 0.00
ATOM	354	CD2	PHE	40	7.421	-29.434	4.124	1.00 0.00
ATOM	355	C	PHE	40	8.535	-30.832	8.545	1.00 0.00
ATOM	356	O	PHE	40	8.686	-31.863	9.200	1.00 0.00
ATOM	357	N	ASN	41	8.488	-29.622	9.119	1.00 0.00
ATOM	358	CA	ASN	41	8.618	-29.440	10.562	1.00 0.00
ATOM	359	CB	ASN	41	8.677	-27.943	10.891	1.00 0.00
ATOM	360	CG	ASN	41	8.855	-27.704	12.387	1.00 0.00
ATOM	361	OD1	ASN	41	9.974	-27.556	12.872	1.00 0.00
ATOM	362	ND2	ASN	41	7.753	-27.636	13.133	1.00 0.00
ATOM	363	C	ASN	41	7.480	-30.160	11.298	1.00 0.00
ATOM	364	O	ASN	41	7.706	-31.175	11.953	1.00 0.00
ATOM	365	N	ASN	42	6.256	-29.636	11.176	1.00 0.00
ATOM	366	CA	ASN	42	5.031	-30.174	11.765	1.00 0.00
ATOM	367	CB	ASN	42	4.871	-29.750	13.238	1.00 0.00
ATOM	368	CG	ASN	42	5.851	-30.429	14.192	1.00 0.00
ATOM	369	OD1	ASN	42	6.672	-29.768	14.822	1.00 0.00
ATOM	370	ND2	ASN	42	5.752	-31.752	14.330	1.00 0.00
ATOM	371	C	ASN	42	3.879	-29.639	10.914	1.00 0.00
ATOM	372	O	ASN	42	2.930	-29.044	11.422	1.00 0.00
ATOM	373	N	ARG	43	3.992	-29.830	9.596	1.00 0.00
ATOM	374	CA	ARG	43	3.028	-29.333	8.631	1.00 0.00
ATOM	375	CB	ARG	43	3.761	-28.822	7.384	1.00 0.00
ATOM	376	CG	ARG	43	4.930	-27.881	7.732	1.00 0.00

221				222				
ATOM	377	CD	ARG	43	4.512	-26.708	8.624	1.00 0.00
ATOM	378	NE	ARG	43	5.570	-25.689	8.695	1.00 0.00
ATOM	379	CZ	ARG	43	5.401	-24.472	9.236	1.00 0.00
ATOM	380	NH1	ARG	43	6.385	-23.571	9.171	1.00 0.00
ATOM	381	NH2	ARG	43	4.240	-24.175	9.834	1.00 0.00
ATOM	382	C	ARG	43	1.974	-30.390	8.308	1.00 0.00
ATOM	383	O	ARG	43	2.223	-31.318	7.543	1.00 0.00
ATOM	384	N	THR	44	0.790	-30.224	8.901	1.00 0.00
ATOM	385	CA	THR	44	-0.370	-31.081	8.721	1.00 0.00
ATOM	386	CB	THR	44	-1.399	-30.715	9.803	1.00 0.00
ATOM	387	CG2	THR	44	-0.844	-30.925	11.216	1.00 0.00
ATOM	388	OG1	THR	44	-1.785	-29.360	9.639	1.00 0.00
ATOM	389	C	THR	44	-0.989	-30.831	7.344	1.00 0.00
ATOM	390	O	THR	44	-0.558	-29.941	6.615	1.00 0.00
ATOM	391	N	SER	45	-2.035	-31.589	7.001	1.00 0.00
ATOM	392	CA	SER	45	-2.777	-31.420	5.760	1.00 0.00
ATOM	393	CB	SER	45	-3.929	-32.429	5.749	1.00 0.00
ATOM	394	OG	SER	45	-4.576	-32.438	7.008	1.00 0.00
ATOM	395	C	SER	45	-3.286	-29.975	5.678	1.00 0.00
ATOM	396	O	SER	45	-3.179	-29.330	4.637	1.00 0.00
ATOM	397	N	VAL	46	-3.819	-29.473	6.798	1.00 0.00
ATOM	398	CA	VAL	46	-4.330	-28.118	6.941	1.00 0.00
ATOM	399	CB	VAL	46	-4.956	-27.937	8.336	1.00 0.00
ATOM	400	CG1	VAL	46	-5.452	-26.500	8.544	1.00 0.00
ATOM	401	CG2	VAL	46	-6.138	-28.894	8.539	1.00 0.00
ATOM	402	C	VAL	46	-3.205	-27.108	6.687	1.00 0.00
ATOM	403	O	VAL	46	-3.377	-26.198	5.878	1.00 0.00
ATOM	404	N	MET	47	-2.061	-27.262	7.368	1.00 0.00
ATOM	405	CA	MET	47	-0.916	-26.367	7.208	1.00 0.00
ATOM	406	CB	MET	47	0.238	-26.840	8.098	1.00 0.00
ATOM	407	CG	MET	47	-0.003	-26.623	9.593	1.00 0.00
ATOM	408	SD	MET	47	0.444	-24.972	10.184	1.00 0.00
ATOM	409	CE	MET	47	0.248	-25.243	11.960	1.00 0.00
ATOM	410	C	MET	47	-0.460	-26.319	5.745	1.00 0.00
ATOM	411	O	MET	47	-0.295	-25.238	5.181	1.00 0.00
ATOM	412	N	LEU	48	-0.255	-27.494	5.140	1.00 0.00
ATOM	413	CA	LEU	48	0.176	-27.649	3.756	1.00 0.00
ATOM	414	CB	LEU	48	0.264	-29.146	3.405	1.00 0.00
ATOM	415	CG	LEU	48	1.419	-29.856	4.131	1.00 0.00
ATOM	416	CD1	LEU	48	1.191	-31.369	4.201	1.00 0.00
ATOM	417	CD2	LEU	48	2.745	-29.621	3.406	1.00 0.00
ATOM	418	C	LEU	48	-0.792	-26.923	2.823	1.00 0.00
ATOM	419	O	LEU	48	-0.371	-26.112	1.996	1.00 0.00
ATOM	420	N	LYS	49	-2.091	-27.210	2.970	1.00 0.00
ATOM	421	CA	LYS	49	-3.141	-26.600	2.173	1.00 0.00
ATOM	422	CB	LYS	49	-4.517	-27.118	2.629	1.00 0.00
ATOM	423	CG	LYS	49	-5.675	-26.498	1.827	1.00 0.00
ATOM	424	CD	LYS	49	-5.758	-27.112	0.427	1.00 0.00
ATOM	425	CE	LYS	49	-5.924	-26.080	-0.696	1.00 0.00
ATOM	426	NZ	LYS	49	-6.213	-26.751	-1.978	1.00 0.00

223					224				
ATOM	427	C	LYS	49	-3.095	-25.080	2.282	1.00	0.00
ATOM	428	O	LYS	49	-3.056	-24.399	1.260	1.00	0.00
ATOM	429	N	ASP	50	-3.128	-24.547	3.508	1.00	0.00
ATOM	430	CA	ASP	50	-3.142	-23.111	3.723	1.00	0.00
ATOM	431	CB	ASP	50	-3.385	-22.769	5.191	1.00	0.00
ATOM	432	CG	ASP	50	-3.697	-21.284	5.335	1.00	0.00
ATOM	433	OD1	ASP	50	-2.991	-20.623	6.124	1.00	0.00
ATOM	434	OD2	ASP	50	-4.665	-20.835	4.680	1.00	0.00
ATOM	435	C	ASP	50	-1.892	-22.429	3.171	1.00	0.00
ATOM	436	O	ASP	50	-2.002	-21.382	2.538	1.00	0.00
ATOM	437	N	ARG	51	-0.703	-23.008	3.378	1.00	0.00
ATOM	438	CA	ARG	51	0.511	-22.410	2.843	1.00	0.00
ATOM	439	CB	ARG	51	1.762	-23.186	3.268	1.00	0.00
ATOM	440	CG	ARG	51	3.039	-22.576	2.660	1.00	0.00
ATOM	441	CD	ARG	51	3.255	-21.127	3.115	1.00	0.00
ATOM	442	NE	ARG	51	4.588	-20.625	2.755	1.00	0.00
ATOM	443	CZ	ARG	51	4.967	-19.337	2.806	1.00	0.00
ATOM	444	NH1	ARG	51	4.098	-18.389	3.167	1.00	0.00
ATOM	445	NH2	ARG	51	6.226	-18.988	2.514	1.00	0.00
ATOM	446	C	ARG	51	0.412	-22.342	1.322	1.00	0.00
ATOM	447	O	ARG	51	0.641	-21.286	0.733	1.00	0.00
ATOM	448	N	TRP	52	0.062	-23.465	0.682	1.00	0.00
ATOM	449	CA	TRP	52	-0.073	-23.478	-0.762	1.00	0.00
ATOM	450	CB	TRP	52	-0.345	-24.880	-1.298	1.00	0.00
ATOM	451	CG	TRP	52	-0.473	-24.892	-2.791	1.00	0.00
ATOM	452	CD1	TRP	52	-1.600	-25.165	-3.481	1.00	0.00
ATOM	453	NE1	TRP	52	-1.357	-25.079	-4.834	1.00	0.00
ATOM	454	CE2	TRP	52	-0.043	-24.735	-5.085	1.00	0.00
ATOM	455	CZ2	TRP	52	0.687	-24.524	-6.265	1.00	0.00
ATOM	456	CH2	TRP	52	2.045	-24.179	-6.178	1.00	0.00
ATOM	457	CZ3	TRP	52	2.654	-24.046	-4.920	1.00	0.00
ATOM	458	CE3	TRP	52	1.914	-24.259	-3.742	1.00	0.00
ATOM	459	CD2	TRP	52	0.547	-24.609	-3.793	1.00	0.00
ATOM	460	C	TRP	52	-1.161	-22.504	-1.213	1.00	0.00
ATOM	461	O	TRP	52	-1.020	-21.894	-2.266	1.00	0.00
ATOM	462	N	ARG	53	-2.230	-22.340	-0.429	1.00	0.00
ATOM	463	CA	ARG	53	-3.306	-21.412	-0.736	1.00	0.00
ATOM	464	CB	ARG	53	-4.445	-21.596	0.267	1.00	0.00
ATOM	465	CG	ARG	53	-5.573	-20.582	0.063	1.00	0.00
ATOM	466	CD	ARG	53	-6.812	-21.049	0.827	1.00	0.00
ATOM	467	NE	ARG	53	-6.562	-21.201	2.272	1.00	0.00
ATOM	468	CZ	ARG	53	-7.342	-21.914	3.101	1.00	0.00
ATOM	469	NH1	ARG	53	-8.317	-22.690	2.622	1.00	0.00
ATOM	470	NH2	ARG	53	-7.140	-21.846	4.421	1.00	0.00
ATOM	471	C	ARG	53	-2.753	-19.987	-0.741	1.00	0.00
ATOM	472	O	ARG	53	-3.057	-19.215	-1.647	1.00	0.00
ATOM	473	N	THR	54	-1.925	-19.641	0.251	1.00	0.00
ATOM	474	CA	THR	54	-1.298	-18.331	0.332	1.00	0.00
ATOM	475	CB	THR	54	-0.479	-18.217	1.624	1.00	0.00
ATOM	476	CG2	THR	54	0.209	-16.854	1.732	1.00	0.00

225					226				
ATOM	477	OG1	THR	54	-1.338	-18.388	2.732	1.00	0.00
ATOM	478	C	THR	54	-0.424	-18.117	-0.906	1.00	0.00
ATOM	479	O	THR	54	-0.525	-17.078	-1.551	1.00	0.00
ATOM	480	N	MET	55	0.425	-19.098	-1.239	1.00	0.00
ATOM	481	CA	MET	55	1.311	-19.033	-2.395	1.00	0.00
ATOM	482	CB	MET	55	2.149	-20.324	-2.470	1.00	0.00
ATOM	483	CG	MET	55	3.543	-20.099	-3.073	1.00	0.00
ATOM	484	SD	MET	55	3.651	-19.184	-4.635	1.00	0.00
ATOM	485	CE	MET	55	2.729	-20.278	-5.740	1.00	0.00
ATOM	486	C	MET	55	0.486	-18.809	-3.670	1.00	0.00
ATOM	487	O	MET	55	0.750	-17.889	-4.444	1.00	0.00
ATOM	488	N	LYS	56	-0.524	-19.663	-3.873	1.00	0.00
ATOM	489	CA	LYS	56	-1.455	-19.643	-4.990	1.00	0.00
ATOM	490	CB	LYS	56	-2.551	-20.696	-4.744	1.00	0.00
ATOM	491	CG	LYS	56	-3.673	-20.733	-5.796	1.00	0.00
ATOM	492	CD	LYS	56	-5.012	-21.126	-5.149	1.00	0.00
ATOM	493	CE	LYS	56	-5.056	-22.558	-4.600	1.00	0.00
ATOM	494	NZ	LYS	56	-5.131	-23.573	-5.667	1.00	0.00
ATOM	495	C	LYS	56	-2.028	-18.233	-5.118	1.00	0.00
ATOM	496	O	LYS	56	-1.964	-17.654	-6.194	1.00	0.00
ATOM	497	N	LYS	57	-2.572	-17.690	-4.026	1.00	0.00
ATOM	498	CA	LYS	57	-3.148	-16.355	-3.971	1.00	0.00
ATOM	499	CB	LYS	57	-3.737	-16.135	-2.563	1.00	0.00
ATOM	500	CG	LYS	57	-4.216	-14.700	-2.280	1.00	0.00
ATOM	501	CD	LYS	57	-3.156	-13.782	-1.637	1.00	0.00
ATOM	502	CE	LYS	57	-2.945	-14.069	-0.143	1.00	0.00
ATOM	503	NZ	LYS	57	-1.906	-13.202	0.446	1.00	0.00
ATOM	504	C	LYS	57	-2.113	-15.284	-4.332	1.00	0.00
ATOM	505	O	LYS	57	-2.428	-14.342	-5.053	1.00	0.00
ATOM	506	N	LEU	58	-0.892	-15.419	-3.806	1.00	0.00
ATOM	507	CA	LEU	58	0.192	-14.468	-3.998	1.00	0.00
ATOM	508	CB	LEU	58	1.334	-14.822	-3.026	1.00	0.00
ATOM	509	CG	LEU	58	2.502	-13.827	-2.913	1.00	0.00
ATOM	510	CD1	LEU	58	3.459	-13.863	-4.112	1.00	0.00
ATOM	511	CD2	LEU	58	2.030	-12.395	-2.638	1.00	0.00
ATOM	512	C	LEU	58	0.638	-14.384	-5.458	1.00	0.00
ATOM	513	O	LEU	58	0.570	-13.312	-6.055	1.00	0.00
ATOM	514	N	LYS	59	1.112	-15.494	-6.036	1.00	0.00
ATOM	515	CA	LYS	59	1.602	-15.505	-7.409	1.00	0.00
ATOM	516	CB	LYS	59	2.545	-16.703	-7.618	1.00	0.00
ATOM	517	CG	LYS	59	3.262	-16.674	-8.983	1.00	0.00
ATOM	518	CD	LYS	59	2.440	-17.297	-10.129	1.00	0.00
ATOM	519	CE	LYS	59	2.451	-16.431	-11.398	1.00	0.00
ATOM	520	NZ	LYS	59	1.404	-16.849	-12.351	1.00	0.00
ATOM	521	C	LYS	59	0.468	-15.504	-8.432	1.00	0.00
ATOM	522	O	LYS	59	0.566	-14.815	-9.442	1.00	0.00
ATOM	523	N	LEU	60	-0.573	-16.305	-8.182	1.00	0.00
ATOM	524	CA	LEU	60	-1.739	-16.523	-9.029	1.00	0.00
ATOM	525	CB	LEU	60	-2.287	-15.243	-9.685	1.00	0.00
ATOM	526	CG	LEU	60	-3.660	-15.450	-10.352	1.00	0.00

227				228				
ATOM	527	CD1	LEU	60	-4.759	-15.841	-9.354	1.00 0.00
ATOM	528	CD2	LEU	60	-4.063	-14.147	-11.047	1.00 0.00
ATOM	529	C	LEU	60	-1.422	-17.641	-10.018	1.00 0.00
ATOM	530	O	LEU	60	-1.089	-17.384	-11.175	1.00 0.00
ATOM	531	N	ILE	61	-1.524	-18.885	-9.536	1.00 0.00
ATOM	532	CA	ILE	61	-1.287	-20.100	-10.311	1.00 0.00
ATOM	533	CB	ILE	61	-0.441	-21.107	-9.505	1.00 0.00
ATOM	534	CG2	ILE	61	-0.434	-22.497	-10.166	1.00 0.00
ATOM	535	CG1	ILE	61	0.990	-20.546	-9.400	1.00 0.00
ATOM	536	CD1	ILE	61	1.991	-21.508	-8.757	1.00 0.00
ATOM	537	C	ILE	61	-2.625	-20.682	-10.777	1.00 0.00
ATOM	538	O	ILE	61	-2.720	-21.193	-11.891	1.00 0.00
ATOM	539	N	SER	62	-3.663	-20.607	-9.933	1.00 0.00
ATOM	540	CA	SER	62	-4.992	-21.124	-10.250	1.00 0.00
ATOM	541	CB	SER	62	-5.967	-20.767	-9.123	1.00 0.00
ATOM	542	OG	SER	62	-7.160	-21.514	-9.243	1.00 0.00
ATOM	543	C	SER	62	-5.494	-20.591	-11.595	1.00 0.00
ATOM	544	O	SER	62	-6.107	-21.332	-12.358	1.00 0.00
ATOM	545	N	SER	63	-5.220	-19.309	-11.866	1.00 0.00
ATOM	546	CA	SER	63	-5.598	-18.617	-13.087	1.00 0.00
ATOM	547	CB	SER	63	-6.677	-17.583	-12.735	1.00 0.00
ATOM	548	OG	SER	63	-7.866	-18.263	-12.391	1.00 0.00
ATOM	549	C	SER	63	-4.351	-17.997	-13.723	1.00 0.00
ATOM	550	O	SER	63	-4.375	-16.840	-14.139	1.00 0.00
ATOM	551	N	ASP	64	-3.265	-18.784	-13.788	1.00 0.00
ATOM	552	CA	ASP	64	-1.979	-18.374	-14.341	1.00 0.00
ATOM	553	CB	ASP	64	-0.981	-19.546	-14.281	1.00 0.00
ATOM	554	CG	ASP	64	0.462	-19.067	-14.355	1.00 0.00
ATOM	555	OD1	ASP	64	0.802	-18.394	-15.349	1.00 0.00
ATOM	556	OD2	ASP	64	1.200	-19.333	-13.379	1.00 0.00
ATOM	557	C	ASP	64	-2.139	-17.843	-15.766	1.00 0.00
ATOM	558	O	ASP	64	-1.996	-16.647	-16.006	1.00 0.00
ATOM	559	N	SER	65	-2.449	-18.739	-16.707	1.00 0.00
ATOM	560	CA	SER	65	-2.637	-18.409	-18.112	1.00 0.00
ATOM	561	CB	SER	65	-2.159	-19.591	-18.964	1.00 0.00
ATOM	562	OG	SER	65	-0.877	-20.014	-18.541	1.00 0.00
ATOM	563	C	SER	65	-4.105	-18.067	-18.381	1.00 0.00
ATOM	564	O	SER	65	-4.700	-18.598	-19.318	1.00 0.00
ATOM	565	N	GLU	66	-4.679	-17.188	-17.552	1.00 0.00
ATOM	566	CA	GLU	66	-6.065	-16.750	-17.651	1.00 0.00
ATOM	567	CB	GLU	66	-6.952	-17.538	-16.675	1.00 0.00
ATOM	568	CG	GLU	66	-6.910	-19.060	-16.863	1.00 0.00
ATOM	569	CD	GLU	66	-7.909	-19.780	-15.957	1.00 0.00
ATOM	570	OE1	GLU	66	-8.308	-19.179	-14.931	1.00 0.00
ATOM	571	OE2	GLU	66	-8.255	-20.929	-16.303	1.00 0.00
ATOM	572	C	GLU	66	-6.154	-15.255	-17.339	1.00 0.00
ATOM	573	O	GLU	66	-6.713	-14.496	-18.129	1.00 0.00
ATOM	574	N	ASP	67	-5.611	-14.851	-16.184	1.00 0.00
ATOM	575	CA	ASP	67	-5.611	-13.471	-15.723	1.00 0.00
ATOM	576	CB	ASP	67	-5.278	-13.461	-14.227	1.00 0.00

229				230			
ATOM	577	CG ASP	67	-5.400	-12.074	-13.604	1.00 0.00
ATOM	578	OD1 ASP	67	-4.348	-11.528	-13.204	1.00 0.00
ATOM	579	OD2 ASP	67	-6.553	-11.601	-13.491	1.00 0.00
ATOM	580	C ASP	67	-4.612	-12.636	-16.529	1.00 0.00
ATOM	581	OT1 ASP	67	-5.049	-11.596	-17.070	1.00 0.00
ATOM	582	OT2 ASP	67	-3.512	-13.172	-16.797	1.00 0.00
ATOM	583	O5' GUA	68	-8.715	-41.216	10.712	1.00 0.00
ATOM	584	C5' GUA	68	-8.392	-41.849	9.491	1.00 0.00
ATOM	585	C4' GUA	68	-8.442	-40.855	8.328	1.00 0.00
ATOM	586	O4' GUA	68	-9.715	-40.252	8.215	1.00 0.00
ATOM	587	C1' GUA	68	-9.572	-39.113	7.396	1.00 0.00
ATOM	588	N9 GUA	68	-10.700	-38.180	7.586	1.00 0.00
ATOM	589	C8 GUA	68	-11.215	-37.714	8.766	1.00 0.00
ATOM	590	N7 GUA	68	-12.261	-36.948	8.627	1.00 0.00
ATOM	591	C5 GUA	68	-12.437	-36.877	7.248	1.00 0.00
ATOM	592	C6 GUA	68	-13.421	-36.189	6.478	1.00 0.00
ATOM	593	O6 GUA	68	-14.405	-35.574	6.883	1.00 0.00
ATOM	594	N1 GUA	68	-13.180	-36.273	5.112	1.00 0.00
ATOM	595	C2 GUA	68	-12.146	-36.990	4.542	1.00 0.00
ATOM	596	N2 GUA	68	-12.023	-36.961	3.215	1.00 0.00
ATOM	597	N3 GUA	68	-11.258	-37.689	5.260	1.00 0.00
ATOM	598	C4 GUA	68	-11.453	-37.588	6.602	1.00 0.00
ATOM	599	C3' GUA	68	-7.459	-39.682	8.474	1.00 0.00
ATOM	600	C2' GUA	68	-8.278	-38.514	7.912	1.00 0.00
ATOM	601	O3' GUA	68	-6.286	-39.973	7.727	1.00 0.00
ATOM	602	P THY	69	-5.047	-38.938	7.568	1.00 0.00
ATOM	603	OP1 THY	69	-4.860	-38.232	8.854	1.00 0.00
ATOM	604	OP2 THY	69	-3.917	-39.674	6.961	1.00 0.00
ATOM	605	O5' THY	69	-5.589	-37.875	6.480	1.00 0.00
ATOM	606	C5' THY	69	-6.113	-38.312	5.238	1.00 0.00
ATOM	607	C4' THY	69	-6.974	-37.237	4.560	1.00 0.00
ATOM	608	O4' THY	69	-8.114	-36.787	5.253	1.00 0.00
ATOM	609	C1' THY	69	-8.456	-35.514	4.758	1.00 0.00
ATOM	610	N1 THY	69	-9.425	-34.855	5.671	1.00 0.00
ATOM	611	C6 THY	69	-9.271	-34.981	7.031	1.00 0.00
ATOM	612	C5 THY	69	-10.133	-34.390	7.893	1.00 0.00
ATOM	613	C7 THY	69	-9.842	-34.568	9.372	1.00 0.00
ATOM	614	C4 THY	69	-11.270	-33.624	7.420	1.00 0.00
ATOM	615	O4 THY	69	-12.090	-33.046	8.128	1.00 0.00
ATOM	616	N3 THY	69	-11.388	-33.586	6.041	1.00 0.00
ATOM	617	C2 THY	69	-10.503	-34.150	5.133	1.00 0.00
ATOM	618	O2 THY	69	-10.690	-34.019	3.926	1.00 0.00
ATOM	619	C3' THY	69	-6.195	-35.967	4.198	1.00 0.00
ATOM	620	C2' THY	69	-7.079	-34.860	4.787	1.00 0.00
ATOM	621	O3' THY	69	-6.047	-35.859	2.794	1.00 0.00
ATOM	622	P THY	70	-5.118	-34.713	2.146	1.00 0.00
ATOM	623	OP1 THY	70	-4.352	-35.308	1.021	1.00 0.00
ATOM	624	OP2 THY	70	-4.386	-34.061	3.248	1.00 0.00
ATOM	625	O5' THY	70	-6.178	-33.637	1.585	1.00 0.00
ATOM	626	C5' THY	70	-7.089	-33.933	0.545	1.00 0.00

231				232				
ATOM	627	C4' THY	70	-8.180	-32.855	0.521	1.00	0.00
ATOM	628	O4' THY	70	-8.747	-32.732	1.808	1.00	0.00
ATOM	629	C1' THY	70	-9.329	-31.455	1.921	1.00	0.00
ATOM	630	N1 THY	70	-9.571	-31.136	3.353	1.00	0.00
ATOM	631	C6 THY	70	-8.595	-31.378	4.291	1.00	0.00
ATOM	632	C5 THY	70	-8.827	-31.179	5.611	1.00	0.00
ATOM	633	C7 THY	70	-7.668	-31.480	6.541	1.00	0.00
ATOM	634	C4 THY	70	-10.111	-30.715	6.096	1.00	0.00
ATOM	635	O4 THY	70	-10.405	-30.511	7.271	1.00	0.00
ATOM	636	N3 THY	70	-11.047	-30.518	5.097	1.00	0.00
ATOM	637	C2 THY	70	-10.829	-30.667	3.736	1.00	0.00
ATOM	638	O2 THY	70	-11.707	-30.362	2.933	1.00	0.00
ATOM	639	C3' THY	70	-7.679	-31.443	0.170	1.00	0.00
ATOM	640	C2' THY	70	-8.282	-30.553	1.270	1.00	0.00
ATOM	641	O3' THY	70	-8.118	-31.109	-1.138	1.00	0.00
ATOM	642	P ADE	71	-7.669	-29.757	-1.895	1.00	0.00
ATOM	643	OP1 ADE	71	-6.293	-29.389	-1.481	1.00	0.00
ATOM	644	OP2 ADE	71	-7.977	-29.884	-3.333	1.00	0.00
ATOM	645	O5' ADE	71	-8.642	-28.635	-1.289	1.00	0.00
ATOM	646	C5' ADE	71	-10.016	-28.583	-1.618	1.00	0.00
ATOM	647	C4' ADE	71	-10.721	-27.526	-0.760	1.00	0.00
ATOM	648	O4' ADE	71	-10.931	-28.001	0.570	1.00	0.00
ATOM	649	C1' ADE	71	-10.684	-26.928	1.453	1.00	0.00
ATOM	650	N9 ADE	71	-10.445	-27.321	2.860	1.00	0.00
ATOM	651	C8 ADE	71	-9.294	-27.826	3.402	1.00	0.00
ATOM	652	N7 ADE	71	-9.274	-27.888	4.701	1.00	0.00
ATOM	653	C5 ADE	71	-10.516	-27.380	5.052	1.00	0.00
ATOM	654	C6 ADE	71	-11.121	-27.138	6.296	1.00	0.00
ATOM	655	N6 ADE	71	-10.502	-27.417	7.445	1.00	0.00
ATOM	656	N1 ADE	71	-12.343	-26.576	6.324	1.00	0.00
ATOM	657	C2 ADE	71	-12.941	-26.284	5.172	1.00	0.00
ATOM	658	N3 ADE	71	-12.489	-26.479	3.935	1.00	0.00
ATOM	659	C4 ADE	71	-11.247	-27.036	3.942	1.00	0.00
ATOM	660	C3' ADE	71	-9.880	-26.242	-0.619	1.00	0.00
ATOM	661	C2' ADE	71	-9.399	-26.409	0.819	1.00	0.00
ATOM	662	O3' ADE	71	-10.719	-25.122	-0.766	1.00	0.00
ATOM	663	P GUA	72	-10.165	-23.615	-0.877	1.00	0.00
ATOM	664	OP1 GUA	72	-9.033	-23.436	0.064	1.00	0.00
ATOM	665	OP2 GUA	72	-10.004	-23.267	-2.305	1.00	0.00
ATOM	666	O5' GUA	72	-11.425	-22.835	-0.267	1.00	0.00
ATOM	667	C5' GUA	72	-12.737	-23.005	-0.771	1.00	0.00
ATOM	668	C4' GUA	72	-13.753	-22.519	0.269	1.00	0.00
ATOM	669	O4' GUA	72	-13.632	-23.271	1.473	1.00	0.00
ATOM	670	C1' GUA	72	-13.317	-22.434	2.575	1.00	0.00
ATOM	671	N9 GUA	72	-12.309	-23.088	3.444	1.00	0.00
ATOM	672	C8 GUA	72	-11.142	-23.683	3.048	1.00	0.00
ATOM	673	N7 GUA	72	-10.344	-24.025	4.020	1.00	0.00
ATOM	674	C5 GUA	72	-11.062	-23.684	5.158	1.00	0.00
ATOM	675	C6 GUA	72	-10.726	-23.866	6.531	1.00	0.00
ATOM	676	O6 GUA	72	-9.681	-24.316	6.994	1.00	0.00

233

234

ATOM	677	N1	GUA	72	-11.749	-23.473	7.386	1.00	0.00
ATOM	678	C2	GUA	72	-12.952	-22.939	6.968	1.00	0.00
ATOM	679	N2	GUA	72	-13.813	-22.545	7.909	1.00	0.00
ATOM	680	N3	GUA	72	-13.259	-22.743	5.676	1.00	0.00
ATOM	681	C4	GUA	72	-12.281	-23.141	4.820	1.00	0.00
ATOM	682	C3'	GUA	72	-13.520	-21.056	0.644	1.00	0.00
ATOM	683	C2'	GUA	72	-12.700	-21.202	1.923	1.00	0.00
ATOM	684	O3'	GUA	72	-14.779	-20.436	0.844	1.00	0.00
ATOM	685	P	GUA	73	-14.928	-18.846	1.070	1.00	0.00
ATOM	686	OP1	GUA	73	-16.316	-18.460	0.731	1.00	0.00
ATOM	687	OP2	GUA	73	-13.792	-18.163	0.411	1.00	0.00
ATOM	688	O5'	GUA	73	-14.743	-18.718	2.661	1.00	0.00
ATOM	689	C5'	GUA	73	-15.725	-19.221	3.544	1.00	0.00
ATOM	690	C4'	GUA	73	-15.243	-19.121	4.990	1.00	0.00
ATOM	691	O4'	GUA	73	-14.069	-19.890	5.184	1.00	0.00
ATOM	692	C1'	GUA	73	-13.281	-19.237	6.152	1.00	0.00
ATOM	693	N9	GUA	73	-11.891	-19.745	6.156	1.00	0.00
ATOM	694	C8	GUA	73	-11.029	-19.901	5.102	1.00	0.00
ATOM	695	N7	GUA	73	-9.887	-20.448	5.416	1.00	0.00
ATOM	696	C5	GUA	73	-9.988	-20.650	6.789	1.00	0.00
ATOM	697	C6	GUA	73	-9.061	-21.230	7.703	1.00	0.00
ATOM	698	O6	GUA	73	-7.942	-21.676	7.454	1.00	0.00
ATOM	699	N1	GUA	73	-9.559	-21.280	9.004	1.00	0.00
ATOM	700	C2	GUA	73	-10.807	-20.823	9.380	1.00	0.00
ATOM	701	N2	GUA	73	-11.153	-20.894	10.665	1.00	0.00
ATOM	702	N3	GUA	73	-11.674	-20.272	8.523	1.00	0.00
ATOM	703	C4	GUA	73	-11.208	-20.216	7.249	1.00	0.00
ATOM	704	C3'	GUA	73	-14.878	-17.689	5.422	1.00	0.00
ATOM	705	C2'	GUA	73	-13.367	-17.806	5.645	1.00	0.00
ATOM	706	O3'	GUA	73	-15.595	-17.413	6.611	1.00	0.00
ATOM	707	P	GUA	74	-15.547	-15.988	7.363	1.00	0.00
ATOM	708	OP1	GUA	74	-16.938	-15.530	7.577	1.00	0.00
ATOM	709	OP2	GUA	74	-14.577	-15.104	6.678	1.00	0.00
ATOM	710	O5'	GUA	74	-14.926	-16.411	8.785	1.00	0.00
ATOM	711	C5'	GUA	74	-15.630	-17.272	9.661	1.00	0.00
ATOM	712	C4'	GUA	74	-14.849	-17.486	10.961	1.00	0.00
ATOM	713	O4'	GUA	74	-13.579	-18.046	10.663	1.00	0.00
ATOM	714	C1'	GUA	74	-12.550	-17.269	11.239	1.00	0.00
ATOM	715	N9	GUA	74	-11.349	-17.330	10.372	1.00	0.00
ATOM	716	C8	GUA	74	-11.239	-16.978	9.050	1.00	0.00
ATOM	717	N7	GUA	74	-10.083	-17.256	8.514	1.00	0.00
ATOM	718	C5	GUA	74	-9.371	-17.843	9.552	1.00	0.00
ATOM	719	C6	GUA	74	-8.063	-18.411	9.558	1.00	0.00
ATOM	720	O6	GUA	74	-7.281	-18.512	8.617	1.00	0.00
ATOM	721	N1	GUA	74	-7.704	-18.911	10.805	1.00	0.00
ATOM	722	C2	GUA	74	-8.524	-18.897	11.916	1.00	0.00
ATOM	723	N2	GUA	74	-8.035	-19.375	13.062	1.00	0.00
ATOM	724	N3	GUA	74	-9.763	-18.387	11.904	1.00	0.00
ATOM	725	C4	GUA	74	-10.130	-17.878	10.698	1.00	0.00
ATOM	726	C3'	GUA	74	-14.588	-16.172	11.715	1.00	0.00

235				236				
ATOM	727	C2' GUA	74	-13.150	-15.866	11.302	1.00	0.00
ATOM	728	O3' GUA	74	-14.739	-16.398	13.106	1.00	0.00
ATOM	729	P THY	75	-14.584	-15.221	14.203	1.00	0.00
ATOM	730	OP1 THY	75	-14.691	-13.912	13.522	1.00	0.00
ATOM	731	OP2 THY	75	-15.470	-15.531	15.347	1.00	0.00
ATOM	732	O5' THY	75	-13.060	-15.416	14.680	1.00	0.00
ATOM	733	C5' THY	75	-12.677	-16.561	15.416	1.00	0.00
ATOM	734	C4' THY	75	-11.156	-16.627	15.527	1.00	0.00
ATOM	735	O4' THY	75	-10.574	-16.549	14.241	1.00	0.00
ATOM	736	C1' THY	75	-9.289	-15.991	14.379	1.00	0.00
ATOM	737	N1 THY	75	-8.778	-15.533	13.059	1.00	0.00
ATOM	738	C6 THY	75	-9.575	-14.800	12.206	1.00	0.00
ATOM	739	C5 THY	75	-9.163	-14.489	10.948	1.00	0.00
ATOM	740	C7 THY	75	-10.128	-13.667	10.116	1.00	0.00
ATOM	741	C4 THY	75	-7.874	-14.921	10.446	1.00	0.00
ATOM	742	O4 THY	75	-7.428	-14.763	9.310	1.00	0.00
ATOM	743	N3 THY	75	-7.117	-15.582	11.389	1.00	0.00
ATOM	744	C2 THY	75	-7.501	-15.928	12.671	1.00	0.00
ATOM	745	O2 THY	75	-6.730	-16.553	13.392	1.00	0.00
ATOM	746	C3' THY	75	-10.528	-15.482	16.340	1.00	0.00
ATOM	747	C2' THY	75	-9.574	-14.836	15.331	1.00	0.00
ATOM	748	O3' THY	75	-9.881	-16.050	17.467	1.00	0.00
ATOM	749	P THY	76	-9.099	-15.169	18.570	1.00	0.00
ATOM	750	OP1 THY	76	-9.173	-15.877	19.867	1.00	0.00
ATOM	751	OP2 THY	76	-9.545	-13.762	18.466	1.00	0.00
ATOM	752	O5' THY	76	-7.586	-15.260	18.036	1.00	0.00
ATOM	753	C5' THY	76	-6.901	-16.498	18.020	1.00	0.00
ATOM	754	C4' THY	76	-5.538	-16.333	17.349	1.00	0.00
ATOM	755	O4' THY	76	-5.697	-15.832	16.041	1.00	0.00
ATOM	756	C1' THY	76	-4.527	-15.136	15.683	1.00	0.00
ATOM	757	N1 THY	76	-4.805	-14.276	14.499	1.00	0.00
ATOM	758	C6 THY	76	-5.955	-13.517	14.447	1.00	0.00
ATOM	759	C5 THY	76	-6.306	-12.849	13.318	1.00	0.00
ATOM	760	C7 THY	76	-7.590	-12.044	13.388	1.00	0.00
ATOM	761	C4 THY	76	-5.497	-12.911	12.117	1.00	0.00
ATOM	762	O4 THY	76	-5.756	-12.384	11.038	1.00	0.00
ATOM	763	N3 THY	76	-4.350	-13.669	12.261	1.00	0.00
ATOM	764	C2 THY	76	-3.950	-14.350	13.398	1.00	0.00
ATOM	765	O2 THY	76	-2.888	-14.978	13.396	1.00	0.00
ATOM	766	C3' THY	76	-4.618	-15.335	18.067	1.00	0.00
ATOM	767	C2' THY	76	-4.248	-14.341	16.957	1.00	0.00
ATOM	768	O3' THY	76	-3.516	-16.063	18.579	1.00	0.00
ATOM	769	P ADE	77	-2.384	-15.400	19.513	1.00	0.00
ATOM	770	OP1 ADE	77	-1.832	-16.484	20.358	1.00	0.00
ATOM	771	OP2 ADE	77	-2.915	-14.170	20.135	1.00	0.00
ATOM	772	O5' ADE	77	-1.269	-14.999	18.430	1.00	0.00
ATOM	773	C5' ADE	77	-0.525	-15.999	17.766	1.00	0.00
ATOM	774	C4' ADE	77	0.339	-15.378	16.672	1.00	0.00
ATOM	775	O4' ADE	77	-0.467	-14.736	15.705	1.00	0.00
ATOM	776	C1' ADE	77	0.267	-13.661	15.163	1.00	0.00

(120)

特開2003-135087

237				238				
ATOM	777	N9	ADE	77	-0.662	-12.755	14.454	1.00 0.00
ATOM	778	C8	ADE	77	-1.792	-12.145	14.943	1.00 0.00
ATOM	779	N7	ADE	77	-2.480	-11.492	14.049	1.00 0.00
ATOM	780	C5	ADE	77	-1.749	-11.676	12.882	1.00 0.00
ATOM	781	C6	ADE	77	-1.940	-11.242	11.557	1.00 0.00
ATOM	782	N6	ADE	77	-2.986	-10.493	11.205	1.00 0.00
ATOM	783	N1	ADE	77	-1.035	-11.592	10.622	1.00 0.00
ATOM	784	C2	ADE	77	-0.001	-12.350	10.986	1.00 0.00
ATOM	785	N3	ADE	77	0.273	-12.855	12.187	1.00 0.00
ATOM	786	C4	ADE	77	-0.643	-12.454	13.112	1.00 0.00
ATOM	787	C3'	ADE	77	1.316	-14.309	17.185	1.00 0.00
ATOM	788	C2'	ADE	77	0.891	-13.056	16.414	1.00 0.00
ATOM	789	O3'	ADE	77	2.623	-14.762	16.882	1.00 0.00
ATOM	790	P	GUA	78	3.949	-14.004	17.398	1.00 0.00
ATOM	791	OP1	GUA	78	3.565	-13.001	18.414	1.00 0.00
ATOM	792	OP2	GUA	78	4.962	-15.035	17.714	1.00 0.00
ATOM	793	O5'	GUA	78	4.398	-13.233	16.060	1.00 0.00
ATOM	794	C5'	GUA	78	4.964	-13.946	14.979	1.00 0.00
ATOM	795	C4'	GUA	78	4.981	-13.096	13.709	1.00 0.00
ATOM	796	O4'	GUA	78	3.693	-12.584	13.409	1.00 0.00
ATOM	797	C1'	GUA	78	3.868	-11.359	12.727	1.00 0.00
ATOM	798	N9	GUA	78	2.624	-10.557	12.737	1.00 0.00
ATOM	799	C8	GUA	78	1.822	-10.257	13.809	1.00 0.00
ATOM	800	N7	GUA	78	0.777	-9.536	13.509	1.00 0.00
ATOM	801	C5	GUA	78	0.897	-9.328	12.138	1.00 0.00
ATOM	802	C6	GUA	78	0.045	-8.623	11.235	1.00 0.00
ATOM	803	O6	GUA	78	-0.995	-8.019	11.490	1.00 0.00
ATOM	804	N1	GUA	78	0.495	-8.678	9.919	1.00 0.00
ATOM	805	C2	GUA	78	1.641	-9.331	9.517	1.00 0.00
ATOM	806	N2	GUA	78	1.990	-9.229	8.233	1.00 0.00
ATOM	807	N3	GUA	78	2.444	-9.996	10.362	1.00 0.00
ATOM	808	C4	GUA	78	2.022	-9.957	11.654	1.00 0.00
ATOM	809	C3'	GUA	78	5.912	-11.880	13.816	1.00 0.00
ATOM	810	C2'	GUA	78	4.948	-10.714	13.585	1.00 0.00
ATOM	811	O3'	GUA	78	6.905	-12.011	12.815	1.00 0.00
ATOM	812	P	GUA	79	8.087	-10.933	12.606	1.00 0.00
ATOM	813	OP1	GUA	79	8.127	-10.032	13.779	1.00 0.00
ATOM	814	OP2	GUA	79	9.307	-11.662	12.193	1.00 0.00
ATOM	815	O5'	GUA	79	7.542	-10.102	11.342	1.00 0.00
ATOM	816	C5'	GUA	79	7.436	-10.710	10.069	1.00 0.00
ATOM	817	C4'	GUA	79	6.927	-9.708	9.029	1.00 0.00
ATOM	818	O4'	GUA	79	5.638	-9.247	9.396	1.00 0.00
ATOM	819	C1'	GUA	79	5.562	-7.855	9.182	1.00 0.00
ATOM	820	N9	GUA	79	4.501	-7.277	10.036	1.00 0.00
ATOM	821	C8	GUA	79	4.352	-7.378	11.396	1.00 0.00
ATOM	822	N7	GUA	79	3.259	-6.842	11.860	1.00 0.00
ATOM	823	C5	GUA	79	2.637	-6.333	10.726	1.00 0.00
ATOM	824	C6	GUA	79	1.395	-5.641	10.594	1.00 0.00
ATOM	825	O6	GUA	79	0.599	-5.343	11.481	1.00 0.00
ATOM	826	N1	GUA	79	1.120	-5.293	9.276	1.00 0.00

(121)

特開2003-135087

239

240

ATOM	827	C2	GUA	79	1.942	-5.577	8.204	1.00	0.00
ATOM	828	N2	GUA	79	1.577	-5.132	7.000	1.00	0.00
ATOM	829	N3	GUA	79	3.102	-6.235	8.325	1.00	0.00
ATOM	830	C4	GUA	79	3.393	-6.586	9.606	1.00	0.00
ATOM	831	C3'	GUA	79	7.821	-8.463	8.918	1.00	0.00
ATOM	832	C2'	GUA	79	6.958	-7.397	9.592	1.00	0.00
ATOM	833	O3'	GUA	79	8.070	-8.200	7.546	1.00	0.00
ATOM	834	P	GUA	80	9.033	-7.001	7.053	1.00	0.00
ATOM	835	OP1	GUA	80	9.864	-6.554	8.192	1.00	0.00
ATOM	836	OP2	GUA	80	9.678	-7.414	5.787	1.00	0.00
ATOM	837	O5'	GUA	80	7.975	-5.836	6.720	1.00	0.00
ATOM	838	C5'	GUA	80	7.124	-5.929	5.594	1.00	0.00
ATOM	839	C4'	GUA	80	6.175	-4.729	5.550	1.00	0.00
ATOM	840	O4'	GUA	80	5.357	-4.723	6.705	1.00	0.00
ATOM	841	C1'	GUA	80	5.153	-3.385	7.094	1.00	0.00
ATOM	842	N9	GUA	80	4.682	-3.318	8.493	1.00	0.00
ATOM	843	C8	GUA	80	5.280	-3.821	9.619	1.00	0.00
ATOM	844	N7	GUA	80	4.595	-3.644	10.713	1.00	0.00
ATOM	845	C5	GUA	80	3.452	-2.977	10.286	1.00	0.00
ATOM	846	C6	GUA	80	2.314	-2.536	11.025	1.00	0.00
ATOM	847	O6	GUA	80	2.096	-2.656	12.229	1.00	0.00
ATOM	848	N1	GUA	80	1.372	-1.909	10.219	1.00	0.00
ATOM	849	C2	GUA	80	1.503	-1.719	8.859	1.00	0.00
ATOM	850	N2	GUA	80	0.532	-1.054	8.228	1.00	0.00
ATOM	851	N3	GUA	80	2.566	-2.142	8.160	1.00	0.00
ATOM	852	C4	GUA	80	3.500	-2.766	8.929	1.00	0.00
ATOM	853	C3'	GUA	80	6.910	-3.378	5.549	1.00	0.00
ATOM	854	C2'	GUA	80	6.553	-2.804	6.918	1.00	0.00
ATOM	855	O3'	GUA	80	6.399	-2.536	4.537	1.00	0.00
ATOM	856	O5'	CYT	81	-6.307	3.065	13.425	1.00	0.00
ATOM	857	C5'	CYT	81	-5.846	3.764	12.286	1.00	0.00
ATOM	858	C4'	CYT	81	-5.008	2.861	11.375	1.00	0.00
ATOM	859	O4'	CYT	81	-3.937	2.263	12.077	1.00	0.00
ATOM	860	C1'	CYT	81	-3.459	1.220	11.257	1.00	0.00
ATOM	861	N1	CYT	81	-2.604	0.259	11.996	1.00	0.00
ATOM	862	C6	CYT	81	-2.971	-0.173	13.245	1.00	0.00
ATOM	863	C5	CYT	81	-2.266	-1.121	13.902	1.00	0.00
ATOM	864	C4	CYT	81	-1.103	-1.642	13.240	1.00	0.00
ATOM	865	N4	CYT	81	-0.334	-2.558	13.832	1.00	0.00
ATOM	866	N3	CYT	81	-0.774	-1.243	12.006	1.00	0.00
ATOM	867	C2	CYT	81	-1.511	-0.311	11.346	1.00	0.00
ATOM	868	O2	CYT	81	-1.210	-0.001	10.195	1.00	0.00
ATOM	869	C3'	CYT	81	-5.774	1.673	10.774	1.00	0.00
ATOM	870	C2'	CYT	81	-4.750	0.539	10.834	1.00	0.00
ATOM	871	O3'	CYT	81	-6.192	1.983	9.454	1.00	0.00
ATOM	872	P	CYT	82	-7.007	0.933	8.531	1.00	0.00
ATOM	873	OP1	CYT	82	-7.632	-0.071	9.420	1.00	0.00
ATOM	874	OP2	CYT	82	-7.845	1.709	7.591	1.00	0.00
ATOM	875	O5'	CYT	82	-5.845	0.196	7.685	1.00	0.00
ATOM	876	C5'	CYT	82	-5.090	0.892	6.709	1.00	0.00

241				242				
ATOM	877	C4' CYT	82	-4.054	-0.028	6.048	1.00	0.00
ATOM	878	O4' CYT	82	-3.163	-0.542	7.020	1.00	0.00
ATOM	879	C1' CYT	82	-2.921	-1.915	6.790	1.00	0.00
ATOM	880	N1 CYT	82	-2.690	-2.567	8.098	1.00	0.00
ATOM	881	C6 CYT	82	-3.600	-2.365	9.097	1.00	0.00
ATOM	882	C5 CYT	82	-3.467	-2.924	10.311	1.00	0.00
ATOM	883	C4 CYT	82	-2.310	-3.747	10.518	1.00	0.00
ATOM	884	N4 CYT	82	-2.112	-4.350	11.691	1.00	0.00
ATOM	885	N3 CYT	82	-1.429	-3.965	9.529	1.00	0.00
ATOM	886	C2 CYT	82	-1.596	-3.401	8.300	1.00	0.00
ATOM	887	O2 CYT	82	-0.795	-3.645	7.400	1.00	0.00
ATOM	888	C3' CYT	82	-4.675	-1.244	5.343	1.00	0.00
ATOM	889	C2' CYT	82	-4.238	-2.417	6.207	1.00	0.00
ATOM	890	O3' CYT	82	-4.171	-1.299	4.018	1.00	0.00
ATOM	891	P CYT	83	-4.589	-2.450	2.967	1.00	0.00
ATOM	892	OP1 CYT	83	-5.868	-3.047	3.407	1.00	0.00
ATOM	893	OP2 CYT	83	-4.466	-1.892	1.601	1.00	0.00
ATOM	894	O5' CYT	83	-3.426	-3.549	3.172	1.00	0.00
ATOM	895	C5' CYT	83	-2.106	-3.323	2.707	1.00	0.00
ATOM	896	C4' CYT	83	-1.228	-4.547	2.993	1.00	0.00
ATOM	897	O4' CYT	83	-1.177	-4.793	4.382	1.00	0.00
ATOM	898	C1' CYT	83	-1.037	-6.177	4.623	1.00	0.00
ATOM	899	N1 CYT	83	-1.611	-6.472	5.962	1.00	0.00
ATOM	900	C6 CYT	83	-2.820	-5.921	6.297	1.00	0.00
ATOM	901	C5 CYT	83	-3.352	-6.058	7.528	1.00	0.00
ATOM	902	C4 CYT	83	-2.590	-6.818	8.478	1.00	0.00
ATOM	903	N4 CYT	83	-3.044	-6.982	9.721	1.00	0.00
ATOM	904	N3 CYT	83	-1.424	-7.390	8.141	1.00	0.00
ATOM	905	C2 CYT	83	-0.908	-7.247	6.885	1.00	0.00
ATOM	906	O2 CYT	83	0.147	-7.805	6.592	1.00	0.00
ATOM	907	C3' CYT	83	-1.767	-5.832	2.343	1.00	0.00
ATOM	908	C2' CYT	83	-1.890	-6.802	3.521	1.00	0.00
ATOM	909	O3' CYT	83	-0.860	-6.251	1.336	1.00	0.00
ATOM	910	P THY	84	-1.108	-7.560	0.420	1.00	0.00
ATOM	911	OP1 THY	84	-0.317	-7.421	-0.821	1.00	0.00
ATOM	912	OP2 THY	84	-2.559	-7.832	0.345	1.00	0.00
ATOM	913	O5' THY	84	-0.436	-8.717	1.305	1.00	0.00
ATOM	914	C5' THY	84	0.946	-8.702	1.602	1.00	0.00
ATOM	915	C4' THY	84	1.243	-9.777	2.645	1.00	0.00
ATOM	916	O4' THY	84	0.503	-9.541	3.828	1.00	0.00
ATOM	917	C1' THY	84	0.377	-10.765	4.515	1.00	0.00
ATOM	918	N1 THY	84	-0.702	-10.673	5.541	1.00	0.00
ATOM	919	C6 THY	84	-1.927	-10.150	5.202	1.00	0.00
ATOM	920	C5 THY	84	-2.902	-9.983	6.127	1.00	0.00
ATOM	921	C7 THY	84	-4.210	-9.408	5.614	1.00	0.00
ATOM	922	C4 THY	84	-2.698	-10.333	7.517	1.00	0.00
ATOM	923	O4 THY	84	-3.521	-10.183	8.414	1.00	0.00
ATOM	924	N3 THY	84	-1.452	-10.876	7.784	1.00	0.00
ATOM	925	C2 THY	84	-0.441	-11.083	6.854	1.00	0.00
ATOM	926	O2 THY	84	0.607	-11.621	7.197	1.00	0.00

(123)

特開2003-135087

243

244

ATOM	927	C3'	THY	84	0.833	-11.182	2.176	1.00	0.00
ATOM	928	C2'	THY	84	0.009	-11.702	3.363	1.00	0.00
ATOM	929	O3'	THY	84	2.002	-11.925	1.875	1.00	0.00
ATOM	930	P	ADE	85	1.963	-13.467	1.403	1.00	0.00
ATOM	931	OP1	ADE	85	0.662	-13.726	0.737	1.00	0.00
ATOM	932	OP2	ADE	85	3.227	-13.784	0.703	1.00	0.00
ATOM	933	O5'	ADE	85	1.974	-14.220	2.823	1.00	0.00
ATOM	934	C5'	ADE	85	3.011	-13.983	3.760	1.00	0.00
ATOM	935	C4'	ADE	85	2.615	-14.532	5.129	1.00	0.00
ATOM	936	O4'	ADE	85	1.409	-13.943	5.579	1.00	0.00
ATOM	937	C1'	ADE	85	0.732	-14.883	6.382	1.00	0.00
ATOM	938	N9	ADE	85	-0.687	-14.507	6.553	1.00	0.00
ATOM	939	C8	ADE	85	-1.592	-14.102	5.603	1.00	0.00
ATOM	940	N7	ADE	85	-2.738	-13.702	6.084	1.00	0.00
ATOM	941	C5	ADE	85	-2.599	-13.904	7.452	1.00	0.00
ATOM	942	C6	ADE	85	-3.454	-13.683	8.551	1.00	0.00
ATOM	943	N6	ADE	85	-4.670	-13.143	8.443	1.00	0.00
ATOM	944	N1	ADE	85	-3.026	-14.047	9.770	1.00	0.00
ATOM	945	C2	ADE	85	-1.822	-14.589	9.898	1.00	0.00
ATOM	946	N3	ADE	85	-0.907	-14.810	8.965	1.00	0.00
ATOM	947	C4	ADE	85	-1.368	-14.441	7.742	1.00	0.00
ATOM	948	C3'	ADE	85	2.351	-16.042	5.113	1.00	0.00
ATOM	949	C2'	ADE	85	0.877	-16.130	5.527	1.00	0.00
ATOM	950	O3'	ADE	85	3.248	-16.650	6.023	1.00	0.00
ATOM	951	P	ADE	86	3.241	-18.229	6.324	1.00	0.00
ATOM	952	OP1	ADE	86	4.632	-18.651	6.602	1.00	0.00
ATOM	953	OP2	ADE	86	2.474	-18.900	5.247	1.00	0.00
ATOM	954	O5'	ADE	86	2.411	-18.303	7.695	1.00	0.00
ATOM	955	C5'	ADE	86	2.864	-17.604	8.838	1.00	0.00
ATOM	956	C4'	ADE	86	2.238	-18.133	10.130	1.00	0.00
ATOM	957	O4'	ADE	86	0.904	-17.680	10.241	1.00	0.00
ATOM	958	C1'	ADE	86	0.002	-18.767	10.246	1.00	0.00
ATOM	959	N9	ADE	86	-1.189	-18.371	9.464	1.00	0.00
ATOM	960	C8	ADE	86	-1.323	-18.213	8.104	1.00	0.00
ATOM	961	N7	ADE	86	-2.446	-17.662	7.733	1.00	0.00
ATOM	962	C5	ADE	86	-3.117	-17.457	8.932	1.00	0.00
ATOM	963	C6	ADE	86	-4.370	-16.897	9.247	1.00	0.00
ATOM	964	N6	ADE	86	-5.203	-16.389	8.335	1.00	0.00
ATOM	965	N1	ADE	86	-4.721	-16.829	10.540	1.00	0.00
ATOM	966	C2	ADE	86	-3.899	-17.286	11.473	1.00	0.00
ATOM	967	N3	ADE	86	-2.691	-17.812	11.314	1.00	0.00
ATOM	968	C4	ADE	86	-2.357	-17.881	9.993	1.00	0.00
ATOM	969	C3'	ADE	86	2.177	-19.662	10.226	1.00	0.00
ATOM	970	C2'	ADE	86	0.780	-19.950	9.675	1.00	0.00
ATOM	971	O3'	ADE	86	2.329	-20.022	11.589	1.00	0.00
ATOM	972	P	CYT	87	2.429	-21.557	12.065	1.00	0.00
ATOM	973	OP1	CYT	87	2.582	-22.415	10.870	1.00	0.00
ATOM	974	OP2	CYT	87	3.414	-21.642	13.162	1.00	0.00
ATOM	975	O5'	CYT	87	0.967	-21.785	12.696	1.00	0.00
ATOM	976	C5'	CYT	87	0.674	-21.298	13.992	1.00	0.00

245				246			
ATOM	977	C4' CYT	87	-0.834	-21.263	14.238	1.00 0.00
ATOM	978	O4' CYT	87	-1.495	-20.690	13.130	1.00 0.00
ATOM	979	C1' CYT	87	-2.813	-21.183	13.098	1.00 0.00
ATOM	980	N1 CYT	87	-3.390	-20.993	11.743	1.00 0.00
ATOM	981	C6 CYT	87	-2.650	-21.291	10.624	1.00 0.00
ATOM	982	C5 CYT	87	-3.120	-21.046	9.382	1.00 0.00
ATOM	983	C4 CYT	87	-4.422	-20.453	9.280	1.00 0.00
ATOM	984	N4 CYT	87	-4.899	-20.078	8.096	1.00 0.00
ATOM	985	N3 CYT	87	-5.149	-20.188	10.373	1.00 0.00
ATOM	986	C2 CYT	87	-4.672	-20.460	11.619	1.00 0.00
ATOM	987	O2 CYT	87	-5.370	-20.219	12.600	1.00 0.00
ATOM	988	C3' CYT	87	-1.478	-22.641	14.449	1.00 0.00
ATOM	989	C2' CYT	87	-2.601	-22.657	13.412	1.00 0.00
ATOM	990	O3' CYT	87	-1.934	-22.698	15.791	1.00 0.00
ATOM	991	P CYT	88	-2.622	-24.012	16.422	1.00 0.00
ATOM	992	OP1 CYT	88	-2.429	-23.964	17.889	1.00 0.00
ATOM	993	OP2 CYT	88	-2.174	-25.194	15.653	1.00 0.00
ATOM	994	O5' CYT	88	-4.182	-23.759	16.113	1.00 0.00
ATOM	995	C5' CYT	88	-4.901	-22.731	16.769	1.00 0.00
ATOM	996	C4' CYT	88	-6.285	-22.570	16.137	1.00 0.00
ATOM	997	O4' CYT	88	-6.152	-22.324	14.755	1.00 0.00
ATOM	998	C1' CYT	88	-7.320	-22.765	14.100	1.00 0.00
ATOM	999	N1 CYT	88	-6.998	-23.030	12.679	1.00 0.00
ATOM	1000	C6 CYT	88	-5.847	-23.699	12.360	1.00 0.00
ATOM	1001	C5 CYT	88	-5.416	-23.812	11.089	1.00 0.00
ATOM	1002	C4 CYT	88	-6.245	-23.218	10.075	1.00 0.00
ATOM	1003	N4 CYT	88	-5.877	-23.236	8.793	1.00 0.00
ATOM	1004	N3 CYT	88	-7.414	-22.639	10.385	1.00 0.00
ATOM	1005	C2 CYT	88	-7.828	-22.541	11.678	1.00 0.00
ATOM	1006	O2 CYT	88	-8.919	-22.042	11.936	1.00 0.00
ATOM	1007	C3' CYT	88	-7.166	-23.823	16.250	1.00 0.00
ATOM	1008	C2' CYT	88	-7.637	-24.070	14.817	1.00 0.00
ATOM	1009	O3' CYT	88	-8.222	-23.545	17.156	1.00 0.00
ATOM	1010	P CYT	89	-9.413	-24.588	17.469	1.00 0.00
ATOM	1011	OP1 CYT	89	-9.915	-24.316	18.833	1.00 0.00
ATOM	1012	OP2 CYT	89	-8.953	-25.949	17.110	1.00 0.00
ATOM	1013	O5' CYT	89	-10.553	-24.147	16.414	1.00 0.00
ATOM	1014	C5' CYT	89	-11.205	-22.893	16.514	1.00 0.00
ATOM	1015	C4' CYT	89	-12.234	-22.731	15.388	1.00 0.00
ATOM	1016	O4' CYT	89	-11.591	-22.820	14.133	1.00 0.00
ATOM	1017	C1' CYT	89	-12.432	-23.460	13.196	1.00 0.00
ATOM	1018	N1 CYT	89	-11.569	-24.143	12.198	1.00 0.00
ATOM	1019	C6 CYT	89	-10.500	-24.879	12.638	1.00 0.00
ATOM	1020	C5 CYT	89	-9.585	-25.386	11.789	1.00 0.00
ATOM	1021	C4 CYT	89	-9.788	-25.124	10.393	1.00 0.00
ATOM	1022	N4 CYT	89	-8.903	-25.557	9.494	1.00 0.00
ATOM	1023	N3 CYT	89	-10.869	-24.461	9.959	1.00 0.00
ATOM	1024	C2 CYT	89	-11.792	-23.969	10.835	1.00 0.00
ATOM	1025	O2 CYT	89	-12.794	-23.396	10.409	1.00 0.00
ATOM	1026	C3' CYT	89	-13.312	-23.825	15.407	1.00 0.00

247				248				
ATOM	1027	C2' CYT	89	-13.174	-24.488	14.040	1.00	0.00
ATOM	1028	O3' CYT	89	-14.581	-23.226	15.621	1.00	0.00
ATOM	1029	P THY	90	-15.957	-24.076	15.699	1.00	0.00
ATOM	1030	OP1 THY	90	-15.628	-25.471	16.067	1.00	0.00
ATOM	1031	OP2 THY	90	-16.928	-23.310	16.511	1.00	0.00
ATOM	1032	O5' THY	90	-16.468	-24.069	14.170	1.00	0.00
ATOM	1033	C5' THY	90	-16.840	-22.865	13.524	1.00	0.00
ATOM	1034	C4' THY	90	-17.076	-23.115	12.032	1.00	0.00
ATOM	1035	O4' THY	90	-15.920	-23.705	11.469	1.00	0.00
ATOM	1036	C1' THY	90	-16.298	-24.622	10.468	1.00	0.00
ATOM	1037	N1 THY	90	-15.192	-25.600	10.293	1.00	0.00
ATOM	1038	C6 THY	90	-14.703	-26.277	11.385	1.00	0.00
ATOM	1039	C5 THY	90	-13.597	-27.052	11.299	1.00	0.00
ATOM	1040	C7 THY	90	-13.162	-27.765	12.566	1.00	0.00
ATOM	1041	C4 THY	90	-12.872	-27.192	10.056	1.00	0.00
ATOM	1042	O4 THY	90	-11.835	-27.832	9.908	1.00	0.00
ATOM	1043	N3 THY	90	-13.442	-26.514	8.991	1.00	0.00
ATOM	1044	C2 THY	90	-14.597	-25.745	9.039	1.00	0.00
ATOM	1045	O2 THY	90	-15.054	-25.249	8.013	1.00	0.00
ATOM	1046	C3' THY	90	-18.238	-24.079	11.746	1.00	0.00
ATOM	1047	C2' THY	90	-17.553	-25.262	11.059	1.00	0.00
ATOM	1048	O3' THY	90	-19.183	-23.425	10.914	1.00	0.00
ATOM	1049	P ADE	91	-20.615	-24.079	10.543	1.00	0.00
ATOM	1050	OP1 ADE	91	-21.534	-22.987	10.155	1.00	0.00
ATOM	1051	OP2 ADE	91	-20.998	-25.015	11.623	1.00	0.00
ATOM	1052	O5' ADE	91	-20.281	-24.942	9.227	1.00	0.00
ATOM	1053	C5' ADE	91	-20.066	-24.316	7.978	1.00	0.00
ATOM	1054	C4' ADE	91	-19.504	-25.318	6.968	1.00	0.00
ATOM	1055	O4' ADE	91	-18.274	-25.845	7.411	1.00	0.00
ATOM	1056	C1' ADE	91	-18.032	-27.006	6.652	1.00	0.00
ATOM	1057	N9 ADE	91	-16.990	-27.821	7.301	1.00	0.00
ATOM	1058	C8 ADE	91	-16.899	-28.169	8.622	1.00	0.00
ATOM	1059	N7 ADE	91	-15.812	-28.824	8.930	1.00	0.00
ATOM	1060	C5 ADE	91	-15.150	-28.938	7.711	1.00	0.00
ATOM	1061	C6 ADE	91	-13.923	-29.517	7.332	1.00	0.00
ATOM	1062	N6 ADE	91	-13.095	-30.090	8.207	1.00	0.00
ATOM	1063	N1 ADE	91	-13.580	-29.506	6.030	1.00	0.00
ATOM	1064	C2 ADE	91	-14.403	-28.941	5.150	1.00	0.00
ATOM	1065	N3 ADE	91	-15.559	-28.331	5.381	1.00	0.00
ATOM	1066	C4 ADE	91	-15.880	-28.362	6.703	1.00	0.00
ATOM	1067	C3' ADE	91	-20.391	-26.551	6.728	1.00	0.00
ATOM	1068	C2' ADE	91	-19.382	-27.705	6.707	1.00	0.00
ATOM	1069	O3' ADE	91	-21.100	-26.360	5.512	1.00	0.00
ATOM	1070	P ADE	92	-21.995	-27.510	4.812	1.00	0.00
ATOM	1071	OP1 ADE	92	-22.403	-28.492	5.841	1.00	0.00
ATOM	1072	OP2 ADE	92	-23.020	-26.851	3.973	1.00	0.00
ATOM	1073	O5' ADE	92	-20.925	-28.217	3.835	1.00	0.00
ATOM	1074	C5' ADE	92	-20.268	-27.481	2.819	1.00	0.00
ATOM	1075	C4' ADE	92	-19.213	-28.346	2.123	1.00	0.00
ATOM	1076	O4' ADE	92	-18.267	-28.817	3.071	1.00	0.00

(126)

特開2003-135087

249

250

ATOM	1077	C1'	ADE	92	-17.948	-30.163	2.791	1.00	0.00
ATOM	1078	N9	ADE	92	-17.442	-30.818	4.018	1.00	0.00
ATOM	1079	C8	ADE	92	-18.058	-30.900	5.243	1.00	0.00
ATOM	1080	N7	ADE	92	-17.337	-31.450	6.178	1.00	0.00
ATOM	1081	C5	ADE	92	-16.154	-31.767	5.523	1.00	0.00
ATOM	1082	C6	ADE	92	-14.957	-32.364	5.961	1.00	0.00
ATOM	1083	N6	ADE	92	-14.778	-32.721	7.233	1.00	0.00
ATOM	1084	N1	ADE	92	-13.960	-32.551	5.075	1.00	0.00
ATOM	1085	C2	ADE	92	-14.149	-32.161	3.816	1.00	0.00
ATOM	1086	N3	ADE	92	-15.224	-31.585	3.280	1.00	0.00
ATOM	1087	C4	ADE	92	-16.208	-31.404	4.201	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.807	-29.592	1.449	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.309	-30.711	2.365	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.296	-29.671	0.129	1.00	0.00
ATOM	1091	P	CYT	93	-19.783	-30.788	-0.928	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.941	-31.517	-0.363	1.00	0.00
ATOM	1093	OP2	CYT	93	-19.887	-30.158	-2.263	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.526	-31.790	-0.941	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.304	-31.421	-1.552	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.257	-32.499	-1.272	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.143	-32.667	0.122	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.706	-33.978	0.396	1.00	0.00
ATOM	1099	N1	CYT	93	-16.115	-34.335	1.777	1.00	0.00
ATOM	1100	C6	CYT	93	-17.368	-34.003	2.229	1.00	0.00
ATOM	1101	C5	CYT	93	-17.745	-34.231	3.507	1.00	0.00
ATOM	1102	C4	CYT	93	-16.769	-34.833	4.371	1.00	0.00
ATOM	1103	N4	CYT	93	-17.019	-34.999	5.669	1.00	0.00
ATOM	1104	N3	CYT	93	-15.561	-35.184	3.913	1.00	0.00
ATOM	1105	C2	CYT	93	-15.203	-34.960	2.619	1.00	0.00
ATOM	1106	O2	CYT	93	-14.090	-35.297	2.226	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.653	-33.881	-1.811	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.451	-34.830	-0.630	1.00	0.00
ATOM	1109	O3'	CYT	93	-15.822	-34.255	-2.888	1.00	0.00

END

HEADER 000000

REMARK 0.00525 1.64870 0.02499 0.01768 2.48743 1.53076

0.00000

REMARK 2.83537 0.37036 0.59011 1.24398 0.63092

REMARK 0.01104 0.00648 0.00822 0.01946 0.00778

REMARK 125 120 5 0 0 0

0

REMARK 1378 305 460 273 340

REMARK 0.03665 0.15003 0.03126 0.05055 0.14749 0.15003

REMARK 3.95953 0.20357

(127)

特開2003-135087

REMARK	251	3	2	1	0	0	0	252
	0							
ATOM	1	N GLU	1	-0.891	-14.462	33.780	1.00	0.00
ATOM	2	CA GLU	1	-1.085	-15.762	33.117	1.00	0.00
ATOM	3	CB GLU	1	-2.152	-15.633	32.012	1.00	0.00
ATOM	4	CG GLU	1	-2.844	-16.948	31.615	1.00	0.00
ATOM	5	CD GLU	1	-3.465	-17.677	32.804	1.00	0.00
ATOM	6	OE1 GLU	1	-3.485	-18.926	32.757	1.00	0.00
ATOM	7	OE2 GLU	1	-3.872	-16.982	33.758	1.00	0.00
ATOM	8	C GLU	1	0.261	-16.283	32.605	1.00	0.00
ATOM	9	O GLU	1	1.252	-15.556	32.660	1.00	0.00
ATOM	10	N LYS	2	0.306	-17.531	32.126	1.00	0.00
ATOM	11	CA LYS	2	1.513	-18.177	31.624	1.00	0.00
ATOM	12	CB LYS	2	1.339	-19.710	31.609	1.00	0.00
ATOM	13	CG LYS	2	0.846	-20.285	32.947	1.00	0.00
ATOM	14	CD LYS	2	-0.640	-20.664	32.860	1.00	0.00
ATOM	15	CE LYS	2	-1.247	-20.928	34.242	1.00	0.00
ATOM	16	NZ LYS	2	-2.709	-21.110	34.159	1.00	0.00
ATOM	17	C LYS	2	1.894	-17.642	30.237	1.00	0.00
ATOM	18	O LYS	2	1.867	-18.378	29.252	1.00	0.00
ATOM	19	N HIS	3	2.257	-16.356	30.160	1.00	0.00
ATOM	20	CA HIS	3	2.649	-15.702	28.920	1.00	0.00
ATOM	21	CB HIS	3	2.464	-14.183	29.060	1.00	0.00
ATOM	22	CG HIS	3	2.614	-13.432	27.759	1.00	0.00
ATOM	23	ND1 HIS	3	3.820	-13.350	27.079	1.00	0.00
ATOM	24	CE1 HIS	3	3.613	-12.620	25.971	1.00	0.00
ATOM	25	NE2 HIS	3	2.349	-12.205	25.861	1.00	0.00
ATOM	26	CD2 HIS	3	1.722	-12.719	26.992	1.00	0.00
ATOM	27	C HIS	3	4.083	-16.105	28.559	1.00	0.00
ATOM	28	O HIS	3	5.011	-15.303	28.653	1.00	0.00
ATOM	29	N ARG	4	4.260	-17.362	28.141	1.00	0.00
ATOM	30	CA ARG	4	5.546	-17.923	27.755	1.00	0.00
ATOM	31	CB ARG	4	6.225	-18.514	29.003	1.00	0.00
ATOM	32	CG ARG	4	7.718	-18.799	28.789	1.00	0.00
ATOM	33	CD ARG	4	8.319	-19.421	30.055	1.00	0.00
ATOM	34	NE ARG	4	9.742	-19.740	29.868	1.00	0.00
ATOM	35	CZ ARG	4	10.513	-20.362	30.776	1.00	0.00
ATOM	36	NH1 ARG	4	10.005	-20.724	31.962	1.00	0.00
ATOM	37	NH2 ARG	4	11.795	-20.623	30.491	1.00	0.00
ATOM	38	C ARG	4	5.315	-18.952	26.645	1.00	0.00
ATOM	39	O ARG	4	5.789	-20.083	26.723	1.00	0.00
ATOM	40	N ALA	5	4.573	-18.552	25.605	1.00	0.00
ATOM	41	CA ALA	5	4.247	-19.405	24.473	1.00	0.00
ATOM	42	CB ALA	5	3.167	-20.418	24.877	1.00	0.00
ATOM	43	C ALA	5	3.788	-18.545	23.296	1.00	0.00
ATOM	44	O ALA	5	2.590	-18.377	23.082	1.00	0.00
ATOM	45	N ARG	6	4.742	-18.004	22.530	1.00	0.00
ATOM	46	CA ARG	6	4.456	-17.180	21.364	1.00	0.00
ATOM	47	CB ARG	6	4.129	-15.729	21.771	1.00	0.00
ATOM	48	CG ARG	6	5.249	-14.930	22.470	1.00	0.00

253				254				
ATOM	49	CD	ARG	6	5.512	-13.581	21.776	1.00 0.00
ATOM	50	NE	ARG	6	5.965	-13.781	20.392	1.00 0.00
ATOM	51	CZ	ARG	6	6.400	-12.858	19.521	1.00 0.00
ATOM	52	NH1	ARG	6	6.728	-13.246	18.286	1.00 0.00
ATOM	53	NH2	ARG	6	6.517	-11.569	19.857	1.00 0.00
ATOM	54	C	ARG	6	5.587	-17.319	20.339	1.00 0.00
ATOM	55	O	ARG	6	6.429	-16.436	20.203	1.00 0.00
ATOM	56	N	LYS	7	5.614	-18.447	19.620	1.00 0.00
ATOM	57	CA	LYS	7	6.613	-18.734	18.600	1.00 0.00
ATOM	58	CB	LYS	7	7.905	-19.313	19.212	1.00 0.00
ATOM	59	CG	LYS	7	8.741	-18.269	19.961	1.00 0.00
ATOM	60	CD	LYS	7	10.138	-18.814	20.287	1.00 0.00
ATOM	61	CE	LYS	7	11.076	-17.706	20.786	1.00 0.00
ATOM	62	NZ	LYS	7	10.547	-17.014	21.976	1.00 0.00
ATOM	63	C	LYS	7	6.033	-19.715	17.582	1.00 0.00
ATOM	64	O	LYS	7	6.142	-20.927	17.764	1.00 0.00
ATOM	65	N	ARG	8	5.434	-19.198	16.504	1.00 0.00
ATOM	66	CA	ARG	8	4.890	-20.040	15.446	1.00 0.00
ATOM	67	CB	ARG	8	4.029	-19.213	14.483	1.00 0.00
ATOM	68	CG	ARG	8	2.650	-18.924	15.079	1.00 0.00
ATOM	69	CD	ARG	8	1.759	-18.231	14.042	1.00 0.00
ATOM	70	NE	ARG	8	0.340	-18.402	14.378	1.00 0.00
ATOM	71	CZ	ARG	8	-0.669	-17.654	13.910	1.00 0.00
ATOM	72	NH1	ARG	8	-1.917	-17.881	14.336	1.00 0.00
ATOM	73	NH2	ARG	8	-0.444	-16.660	13.043	1.00 0.00
ATOM	74	C	ARG	8	6.038	-20.702	14.681	1.00 0.00
ATOM	75	O	ARG	8	7.165	-20.206	14.684	1.00 0.00
ATOM	76	N	GLN	9	5.748	-21.823	14.014	1.00 0.00
ATOM	77	CA	GLN	9	6.734	-22.548	13.236	1.00 0.00
ATOM	78	CB	GLN	9	6.288	-24.002	13.039	1.00 0.00
ATOM	79	CG	GLN	9	6.122	-24.759	14.361	1.00 0.00
ATOM	80	CD	GLN	9	5.757	-26.217	14.101	1.00 0.00
ATOM	81	OE1	GLN	9	6.531	-27.119	14.421	1.00 0.00
ATOM	82	NE2	GLN	9	4.586	-26.449	13.506	1.00 0.00
ATOM	83	C	GLN	9	6.907	-21.836	11.894	1.00 0.00
ATOM	84	O	GLN	9	6.318	-22.246	10.896	1.00 0.00
ATOM	85	N	ALA	10	7.717	-20.773	11.862	1.00 0.00
ATOM	86	CA	ALA	10	7.976	-20.023	10.640	1.00 0.00
ATOM	87	CB	ALA	10	8.933	-18.862	10.924	1.00 0.00
ATOM	88	C	ALA	10	8.552	-20.962	9.576	1.00 0.00
ATOM	89	O	ALA	10	9.403	-21.795	9.882	1.00 0.00
ATOM	90	N	TRP	11	8.076	-20.839	8.335	1.00 0.00
ATOM	91	CA	TRP	11	8.528	-21.677	7.236	1.00 0.00
ATOM	92	CB	TRP	11	7.488	-21.695	6.114	1.00 0.00
ATOM	93	CG	TRP	11	6.184	-22.380	6.395	1.00 0.00
ATOM	94	CD1	TRP	11	5.338	-22.096	7.409	1.00 0.00
ATOM	95	NE1	TRP	11	4.227	-22.912	7.349	1.00 0.00
ATOM	96	CE2	TRP	11	4.310	-23.777	6.281	1.00 0.00
ATOM	97	CZ2	TRP	11	3.456	-24.779	5.797	1.00 0.00
ATOM	98	CH2	TRP	11	3.829	-25.503	4.657	1.00 0.00

255				256			
ATOM	99	CZ3 TRP	11	5.044 -25.217	4.012	1.00	0.00
ATOM	100	CE3 TRP	11	5.893 -24.208	4.504	1.00	0.00
ATOM	101	CD2 TRP	11	5.551 -23.463	5.653	1.00	0.00
ATOM	102	C TRP	11	9.870 -21.171	6.711	1.00	0.00
ATOM	103	O TRP	11	10.147 -19.972	6.748	1.00	0.00
ATOM	104	N LEU	12	10.695 -22.102	6.227	1.00	0.00
ATOM	105	CA LEU	12	12.021 -21.857	5.677	1.00	0.00
ATOM	106	CB LEU	12	13.052 -22.652	6.492	1.00	0.00
ATOM	107	CG LEU	12	12.902 -22.531	8.021	1.00	0.00
ATOM	108	CD1 LEU	12	13.914 -23.460	8.699	1.00	0.00
ATOM	109	CD2 LEU	12	13.134 -21.095	8.505	1.00	0.00
ATOM	110	C LEU	12	12.010 -22.273	4.204	1.00	0.00
ATOM	111	O LEU	12	11.058 -22.928	3.771	1.00	0.00
ATOM	112	N TRP	13	13.049 -21.913	3.426	1.00	0.00
ATOM	113	CA TRP	13	13.087 -22.293	2.022	1.00	0.00
ATOM	114	CB TRP	13	14.363 -21.892	1.295	1.00	0.00
ATOM	115	CG TRP	13	15.651 -21.696	2.026	1.00	0.00
ATOM	116	CD1 TRP	13	16.608 -20.928	1.486	1.00	0.00
ATOM	117	NE1 TRP	13	17.696 -20.866	2.320	1.00	0.00
ATOM	118	CE2 TRP	13	17.503 -21.616	3.457	1.00	0.00
ATOM	119	CZ2 TRP	13	18.313 -21.863	4.575	1.00	0.00
ATOM	120	CH2 TRP	13	17.832 -22.692	5.598	1.00	0.00
ATOM	121	CZ3 TRP	13	16.552 -23.257	5.488	1.00	0.00
ATOM	122	CE3 TRP	13	15.750 -22.996	4.362	1.00	0.00
ATOM	123	CD2 TRP	13	16.196 -22.171	3.306	1.00	0.00
ATOM	124	C TRP	13	12.797 -23.766	1.812	1.00	0.00
ATOM	125	O TRP	13	11.825 -24.056	1.146	1.00	0.00
ATOM	126	N GLU	14	13.590 -24.687	2.359	1.00	0.00
ATOM	127	CA GLU	14	13.381 -26.123	2.229	1.00	0.00
ATOM	128	CB GLU	14	14.191 -26.911	3.272	1.00	0.00
ATOM	129	CG GLU	14	15.669 -26.504	3.385	1.00	0.00
ATOM	130	CD GLU	14	16.326 -26.235	2.038	1.00	0.00
ATOM	131	OE1 GLU	14	16.613 -27.215	1.318	1.00	0.00
ATOM	132	OE2 GLU	14	16.501 -25.045	1.699	1.00	0.00
ATOM	133	C GLU	14	11.899 -26.506	2.278	1.00	0.00
ATOM	134	O GLU	14	11.472 -27.309	1.459	1.00	0.00
ATOM	135	N GLU	15	11.108 -25.927	3.190	1.00	0.00
ATOM	136	CA GLU	15	9.681 -26.203	3.271	1.00	0.00
ATOM	137	CB GLU	15	9.112 -25.727	4.609	1.00	0.00
ATOM	138	CG GLU	15	9.774 -26.477	5.772	1.00	0.00
ATOM	139	CD GLU	15	8.997 -26.283	7.064	1.00	0.00
ATOM	140	OE1 GLU	15	9.288 -25.299	7.779	1.00	0.00
ATOM	141	OE2 GLU	15	8.119 -27.129	7.339	1.00	0.00
ATOM	142	C GLU	15	8.936 -25.614	2.061	1.00	0.00
ATOM	143	O GLU	15	8.228 -26.348	1.378	1.00	0.00
ATOM	144	N ASP	16	9.091 -24.315	1.770	1.00	0.00
ATOM	145	CA ASP	16	8.447 -23.670	0.618	1.00	0.00
ATOM	146	CB ASP	16	8.924 -22.210	0.494	1.00	0.00
ATOM	147	CG ASP	16	8.358 -21.277	1.558	1.00	0.00
ATOM	148	OD1 ASP	16	8.246 -21.713	2.722	1.00	0.00

257				258				
ATOM	149	OD2 ASP	16	8.011	-20.135	1.180	1.00	0.00
ATOM	150	C ASP	16	8.800	-24.426	-0.675	1.00	0.00
ATOM	151	O ASP	16	7.936	-24.867	-1.433	1.00	0.00
ATOM	152	N LYS	17	10.108	-24.564	-0.888	1.00	0.00
ATOM	153	CA LYS	17	10.808	-25.229	-1.965	1.00	0.00
ATOM	154	CB LYS	17	12.320	-25.180	-1.621	1.00	0.00
ATOM	155	CG LYS	17	13.178	-25.788	-2.739	1.00	0.00
ATOM	156	CD LYS	17	14.675	-25.487	-2.560	1.00	0.00
ATOM	157	CE LYS	17	15.185	-25.945	-1.189	1.00	0.00
ATOM	158	NZ LYS	17	16.651	-25.858	-1.065	1.00	0.00
ATOM	159	C LYS	17	10.240	-26.647	-2.137	1.00	0.00
ATOM	160	O LYS	17	9.869	-27.029	-3.251	1.00	0.00
ATOM	161	N ASN	18	10.155	-27.410	-1.037	1.00	0.00
ATOM	162	CA ASN	18	9.617	-28.766	-1.000	1.00	0.00
ATOM	163	CB ASN	18	9.775	-29.356	0.413	1.00	0.00
ATOM	164	CG ASN	18	9.087	-30.699	0.636	1.00	0.00
ATOM	165	OD1 ASN	18	8.677	-31.370	-0.306	1.00	0.00
ATOM	166	ND2 ASN	18	8.963	-31.095	1.903	1.00	0.00
ATOM	167	C ASN	18	8.158	-28.767	-1.447	1.00	0.00
ATOM	168	O ASN	18	7.824	-29.481	-2.385	1.00	0.00
ATOM	169	N LEU	19	7.299	-27.979	-0.789	1.00	0.00
ATOM	170	CA LEU	19	5.875	-27.869	-1.091	1.00	0.00
ATOM	171	CB LEU	19	5.262	-26.742	-0.244	1.00	0.00
ATOM	172	CG LEU	19	3.766	-26.512	-0.500	1.00	0.00
ATOM	173	CD1 LEU	19	2.960	-27.796	-0.295	1.00	0.00
ATOM	174	CD2 LEU	19	3.256	-25.416	0.445	1.00	0.00
ATOM	175	C LEU	19	5.645	-27.652	-2.584	1.00	0.00
ATOM	176	O LEU	19	4.895	-28.397	-3.213	1.00	0.00
ATOM	177	N ARG	20	6.310	-26.641	-3.149	1.00	0.00
ATOM	178	CA ARG	20	6.228	-26.310	-4.564	1.00	0.00
ATOM	179	CB ARG	20	7.117	-25.080	-4.806	1.00	0.00
ATOM	180	CG ARG	20	7.235	-24.589	-6.260	1.00	0.00
ATOM	181	CD ARG	20	8.177	-25.411	-7.154	1.00	0.00
ATOM	182	NE ARG	20	9.421	-25.751	-6.448	1.00	0.00
ATOM	183	CZ ARG	20	10.176	-26.828	-6.705	1.00	0.00
ATOM	184	NH1 ARG	20	10.999	-27.292	-5.760	1.00	0.00
ATOM	185	NH2 ARG	20	10.086	-27.461	-7.881	1.00	0.00
ATOM	186	C ARG	20	6.580	-27.549	-5.399	1.00	0.00
ATOM	187	O ARG	20	5.834	-27.904	-6.314	1.00	0.00
ATOM	188	N SER	21	7.692	-28.226	-5.075	1.00	0.00
ATOM	189	CA SER	21	8.097	-29.447	-5.773	1.00	0.00
ATOM	190	CB SER	21	9.419	-29.998	-5.202	1.00	0.00
ATOM	191	OG SER	21	10.439	-29.969	-6.184	1.00	0.00
ATOM	192	C SER	21	6.996	-30.509	-5.683	1.00	0.00
ATOM	193	O SER	21	6.665	-31.137	-6.684	1.00	0.00
ATOM	194	N GLY	22	6.442	-30.704	-4.485	1.00	0.00
ATOM	195	CA GLY	22	5.393	-31.661	-4.187	1.00	0.00
ATOM	196	C GLY	22	4.178	-31.447	-5.080	1.00	0.00
ATOM	197	O GLY	22	3.718	-32.386	-5.725	1.00	0.00
ATOM	198	N VAL	23	3.663	-30.215	-5.127	1.00	0.00

(131)

特開2003-135087

259

260

ATOM	199	CA	VAL	23	2.508	-29.874	-5.948	1.00	0.00
ATOM	200	CB	VAL	23	2.090	-28.412	-5.713	1.00	0.00
ATOM	201	CG1	VAL	23	1.001	-27.988	-6.710	1.00	0.00
ATOM	202	CG2	VAL	23	1.537	-28.246	-4.294	1.00	0.00
ATOM	203	C	VAL	23	2.806	-30.155	-7.421	1.00	0.00
ATOM	204	O	VAL	23	1.994	-30.776	-8.100	1.00	0.00
ATOM	205	N	ARG	24	3.959	-29.708	-7.926	1.00	0.00
ATOM	206	CA	ARG	24	4.316	-29.929	-9.322	1.00	0.00
ATOM	207	CB	ARG	24	5.585	-29.137	-9.666	1.00	0.00
ATOM	208	CG	ARG	24	5.393	-27.612	-9.612	1.00	0.00
ATOM	209	CD	ARG	24	4.568	-27.062	-10.785	1.00	0.00
ATOM	210	NE	ARG	24	4.534	-25.593	-10.741	1.00	0.00
ATOM	211	CZ	ARG	24	4.221	-24.779	-11.765	1.00	0.00
ATOM	212	NH1	ARG	24	3.813	-25.274	-12.940	1.00	0.00
ATOM	213	NH2	ARG	24	4.329	-23.456	-11.605	1.00	0.00
ATOM	214	C	ARG	24	4.492	-31.419	-9.653	1.00	0.00
ATOM	215	O	ARG	24	4.153	-31.843	-10.755	1.00	0.00
ATOM	216	N	LYS	25	5.038	-32.209	-8.721	1.00	0.00
ATOM	217	CA	LYS	25	5.312	-33.630	-8.911	1.00	0.00
ATOM	218	CB	LYS	25	6.450	-34.044	-7.967	1.00	0.00
ATOM	219	CG	LYS	25	7.040	-35.406	-8.356	1.00	0.00
ATOM	220	CD	LYS	25	8.226	-35.799	-7.465	1.00	0.00
ATOM	221	CE	LYS	25	9.494	-34.996	-7.775	1.00	0.00
ATOM	222	NZ	LYS	25	10.643	-35.494	-6.997	1.00	0.00
ATOM	223	C	LYS	25	4.089	-34.540	-8.767	1.00	0.00
ATOM	224	O	LYS	25	3.961	-35.492	-9.536	1.00	0.00
ATOM	225	N	TYR	26	3.221	-34.290	-7.781	1.00	0.00
ATOM	226	CA	TYR	26	2.061	-35.132	-7.483	1.00	0.00
ATOM	227	CB	TYR	26	2.147	-35.561	-6.012	1.00	0.00
ATOM	228	CG	TYR	26	3.532	-36.023	-5.597	1.00	0.00
ATOM	229	CD1	TYR	26	4.175	-37.048	-6.313	1.00	0.00
ATOM	230	CE1	TYR	26	5.461	-37.466	-5.941	1.00	0.00
ATOM	231	CZ	TYR	26	6.109	-36.867	-4.848	1.00	0.00
ATOM	232	OH	TYR	26	7.358	-37.280	-4.491	1.00	0.00
ATOM	233	CE2	TYR	26	5.470	-35.840	-4.132	1.00	0.00
ATOM	234	CD2	TYR	26	4.183	-35.420	-4.507	1.00	0.00
ATOM	235	C	TYR	26	0.707	-34.486	-7.774	1.00	0.00
ATOM	236	O	TYR	26	-0.314	-35.164	-7.673	1.00	0.00
ATOM	237	N	GLY	27	0.676	-33.199	-8.130	1.00	0.00
ATOM	238	CA	GLY	27	-0.553	-32.480	-8.416	1.00	0.00
ATOM	239	C	GLY	27	-1.090	-31.818	-7.149	1.00	0.00
ATOM	240	O	GLY	27	-0.815	-32.269	-6.037	1.00	0.00
ATOM	241	N	GLU	28	-1.861	-30.742	-7.321	1.00	0.00
ATOM	242	CA	GLU	28	-2.457	-29.986	-6.227	1.00	0.00
ATOM	243	CB	GLU	28	-3.048	-28.694	-6.811	1.00	0.00
ATOM	244	CG	GLU	28	-3.359	-27.634	-5.749	1.00	0.00
ATOM	245	CD	GLU	28	-3.653	-26.285	-6.396	1.00	0.00
ATOM	246	OE1	GLU	28	-2.728	-25.734	-7.034	1.00	0.00
ATOM	247	OE2	GLU	28	-4.786	-25.783	-6.246	1.00	0.00
ATOM	248	C	GLU	28	-3.490	-30.845	-5.485	1.00	0.00

(132)

特開2003-135087

261					262				
ATOM	249	O	GLU	28	-4.052	-31.776	-6.061	1.00	0.00
ATOM	250	N	GLY	29	-3.729	-30.540	-4.204	1.00	0.00
ATOM	251	CA	GLY	29	-4.672	-31.276	-3.371	1.00	0.00
ATOM	252	C	GLY	29	-4.151	-32.681	-3.074	1.00	0.00
ATOM	253	O	GLY	29	-4.841	-33.670	-3.313	1.00	0.00
ATOM	254	N	ASN	30	-2.919	-32.759	-2.556	1.00	0.00
ATOM	255	CA	ASN	30	-2.235	-34.000	-2.215	1.00	0.00
ATOM	256	CB	ASN	30	-1.497	-34.532	-3.456	1.00	0.00
ATOM	257	CG	ASN	30	-2.457	-35.172	-4.451	1.00	0.00
ATOM	258	OD1	ASN	30	-3.082	-36.185	-4.137	1.00	0.00
ATOM	259	ND2	ASN	30	-2.577	-34.590	-5.641	1.00	0.00
ATOM	260	C	ASN	30	-1.265	-33.712	-1.072	1.00	0.00
ATOM	261	O	ASN	30	-0.104	-34.102	-1.116	1.00	0.00
ATOM	262	N	TRP	31	-1.749	-33.007	-0.052	1.00	0.00
ATOM	263	CA	TRP	31	-0.967	-32.586	1.102	1.00	0.00
ATOM	264	CB	TRP	31	-1.782	-31.572	1.904	1.00	0.00
ATOM	265	CG	TRP	31	-2.569	-30.644	1.028	1.00	0.00
ATOM	266	CD1	TRP	31	-3.915	-30.528	0.993	1.00	0.00
ATOM	267	NE1	TRP	31	-4.275	-29.600	0.039	1.00	0.00
ATOM	268	CE2	TRP	31	-3.171	-29.071	-0.589	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.016	-28.122	-1.608	1.00	0.00
ATOM	270	CH2	TRP	31	-1.723	-27.798	-2.043	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.608	-28.417	-1.458	1.00	0.00
ATOM	272	CE3	TRP	31	-0.774	-29.368	-0.437	1.00	0.00
ATOM	273	CD2	TRP	31	-2.061	-29.719	0.025	1.00	0.00
ATOM	274	C	TRP	31	-0.486	-33.780	1.921	1.00	0.00
ATOM	275	O	TRP	31	0.688	-33.854	2.278	1.00	0.00
ATOM	276	N	SER	32	-1.383	-34.729	2.194	1.00	0.00
ATOM	277	CA	SER	32	-1.062	-35.950	2.920	1.00	0.00
ATOM	278	CB	SER	32	-2.327	-36.797	3.073	1.00	0.00
ATOM	279	OG	SER	32	-2.028	-38.083	3.574	1.00	0.00
ATOM	280	C	SER	32	0.021	-36.714	2.159	1.00	0.00
ATOM	281	O	SER	32	1.035	-37.115	2.732	1.00	0.00
ATOM	282	N	LYS	33	-0.194	-36.902	0.851	1.00	0.00
ATOM	283	CA	LYS	33	0.750	-37.602	-0.004	1.00	0.00
ATOM	284	CB	LYS	33	0.273	-37.674	-1.468	1.00	0.00
ATOM	285	CG	LYS	33	-1.241	-37.585	-1.735	1.00	0.00
ATOM	286	CD	LYS	33	-2.128	-38.595	-0.995	1.00	0.00
ATOM	287	CE	LYS	33	-3.552	-38.640	-1.578	1.00	0.00
ATOM	288	NZ	LYS	33	-4.164	-37.307	-1.785	1.00	0.00
ATOM	289	C	LYS	33	2.110	-36.906	0.115	1.00	0.00
ATOM	290	O	LYS	33	3.121	-37.549	0.387	1.00	0.00
ATOM	291	N	ILE	34	2.114	-35.580	-0.066	1.00	0.00
ATOM	292	CA	ILE	34	3.293	-34.733	0.035	1.00	0.00
ATOM	293	CB	ILE	34	2.911	-33.264	-0.248	1.00	0.00
ATOM	294	CG2	ILE	34	3.920	-32.273	0.341	1.00	0.00
ATOM	295	CG1	ILE	34	2.788	-33.076	-1.770	1.00	0.00
ATOM	296	CD1	ILE	34	2.131	-31.752	-2.175	1.00	0.00
ATOM	297	C	ILE	34	3.998	-34.957	1.376	1.00	0.00
ATOM	298	O	ILE	34	5.214	-35.110	1.380	1.00	0.00

263					264				
ATOM	299	N	LEU	35	3.268	-35.001	2.500	1.00	0.00
ATOM	300	CA	LEU	35	3.851	-35.242	3.818	1.00	0.00
ATOM	301	CB	LEU	35	2.776	-35.199	4.919	1.00	0.00
ATOM	302	CG	LEU	35	2.409	-33.766	5.321	1.00	0.00
ATOM	303	CD1	LEU	35	1.020	-33.727	5.969	1.00	0.00
ATOM	304	CD2	LEU	35	3.431	-33.202	6.318	1.00	0.00
ATOM	305	C	LEU	35	4.573	-36.588	3.851	1.00	0.00
ATOM	306	O	LEU	35	5.674	-36.681	4.395	1.00	0.00
ATOM	307	N	LEU	36	3.960	-37.631	3.275	1.00	0.00
ATOM	308	CA	LEU	36	4.558	-38.959	3.241	1.00	0.00
ATOM	309	CB	LEU	36	3.560	-40.005	2.711	1.00	0.00
ATOM	310	CG	LEU	36	2.749	-40.691	3.825	1.00	0.00
ATOM	311	CD1	LEU	36	1.791	-39.736	4.543	1.00	0.00
ATOM	312	CD2	LEU	36	1.942	-41.848	3.223	1.00	0.00
ATOM	313	C	LEU	36	5.839	-38.940	2.403	1.00	0.00
ATOM	314	O	LEU	36	6.858	-39.483	2.827	1.00	0.00
ATOM	315	N	HIS	37	5.792	-38.322	1.218	1.00	0.00
ATOM	316	CA	HIS	37	6.937	-38.237	0.322	1.00	0.00
ATOM	317	CB	HIS	37	6.514	-37.608	-1.013	1.00	0.00
ATOM	318	CG	HIS	37	5.516	-38.424	-1.797	1.00	0.00
ATOM	319	ND1	HIS	37	5.770	-39.724	-2.206	1.00	0.00
ATOM	320	CE1	HIS	37	4.686	-40.151	-2.876	1.00	0.00
ATOM	321	NE2	HIS	37	3.724	-39.229	-2.948	1.00	0.00
ATOM	322	CD2	HIS	37	4.255	-38.141	-2.264	1.00	0.00
ATOM	323	C	HIS	37	8.091	-37.438	0.935	1.00	0.00
ATOM	324	O	HIS	37	9.228	-37.905	0.939	1.00	0.00
ATOM	325	N	TYR	38	7.797	-36.229	1.423	1.00	0.00
ATOM	326	CA	TYR	38	8.755	-35.298	2.001	1.00	0.00
ATOM	327	CB	TYR	38	9.069	-34.217	0.958	1.00	0.00
ATOM	328	CG	TYR	38	9.439	-34.722	-0.425	1.00	0.00
ATOM	329	CD1	TYR	38	8.642	-34.389	-1.538	1.00	0.00
ATOM	330	CE1	TYR	38	8.985	-34.855	-2.820	1.00	0.00
ATOM	331	CZ	TYR	38	10.125	-35.658	-2.989	1.00	0.00
ATOM	332	OH	TYR	38	10.463	-36.119	-4.229	1.00	0.00
ATOM	333	CE2	TYR	38	10.922	-35.994	-1.881	1.00	0.00
ATOM	334	CD2	TYR	38	10.580	-35.525	-0.601	1.00	0.00
ATOM	335	C	TYR	38	8.159	-34.660	3.260	1.00	0.00
ATOM	336	O	TYR	38	7.111	-34.021	3.196	1.00	0.00
ATOM	337	N	LYS	39	8.820	-34.829	4.409	1.00	0.00
ATOM	338	CA	LYS	39	8.355	-34.292	5.683	1.00	0.00
ATOM	339	CB	LYS	39	9.070	-35.011	6.836	1.00	0.00
ATOM	340	CG	LYS	39	8.747	-36.513	6.838	1.00	0.00
ATOM	341	CD	LYS	39	9.490	-37.273	7.948	1.00	0.00
ATOM	342	CE	LYS	39	9.195	-36.779	9.371	1.00	0.00
ATOM	343	NZ	LYS	39	7.753	-36.789	9.680	1.00	0.00
ATOM	344	C	LYS	39	8.526	-32.768	5.778	1.00	0.00
ATOM	345	O	LYS	39	9.222	-32.155	4.970	1.00	0.00
ATOM	346	N	PHE	40	7.868	-32.178	6.784	1.00	0.00
ATOM	347	CA	PHE	40	7.854	-30.752	7.100	1.00	0.00
ATOM	348	CB	PHE	40	6.522	-30.142	6.639	1.00	0.00

265				266				
ATOM	349	CG PHE	40	6.397	-29.974	5.137	1.00	0.00
ATOM	350	CD1 PHE	40	6.113	-31.079	4.315	1.00	0.00
ATOM	351	CE1 PHE	40	6.005	-30.917	2.926	1.00	0.00
ATOM	352	CZ PHE	40	6.175	-29.647	2.349	1.00	0.00
ATOM	353	CE2 PHE	40	6.459	-28.543	3.169	1.00	0.00
ATOM	354	CD2 PHE	40	6.570	-28.704	4.559	1.00	0.00
ATOM	355	C PHE	40	8.025	-30.576	8.611	1.00	0.00
ATOM	356	O PHE	40	7.961	-31.554	9.360	1.00	0.00
ATOM	357	N ASN	41	8.235	-29.333	9.064	1.00	0.00
ATOM	358	CA ASN	41	8.413	-29.008	10.475	1.00	0.00
ATOM	359	CB ASN	41	9.092	-27.637	10.633	1.00	0.00
ATOM	360	CG ASN	41	10.577	-27.676	10.272	1.00	0.00
ATOM	361	OD1 ASN	41	11.317	-28.511	10.783	1.00	0.00
ATOM	362	ND2 ASN	41	11.034	-26.767	9.410	1.00	0.00
ATOM	363	C ASN	41	7.073	-29.060	11.214	1.00	0.00
ATOM	364	O ASN	41	6.497	-28.025	11.539	1.00	0.00
ATOM	365	N ASN	42	6.598	-30.283	11.479	1.00	0.00
ATOM	366	CA ASN	42	5.365	-30.599	12.195	1.00	0.00
ATOM	367	CB ASN	42	5.524	-30.367	13.707	1.00	0.00
ATOM	368	CG ASN	42	6.888	-30.799	14.239	1.00	0.00
ATOM	369	OD1 ASN	42	7.185	-31.989	14.306	1.00	0.00
ATOM	370	ND2 ASN	42	7.726	-29.827	14.604	1.00	0.00
ATOM	371	C ASN	42	4.176	-29.823	11.623	1.00	0.00
ATOM	372	O ASN	42	3.634	-28.935	12.283	1.00	0.00
ATOM	373	N ARG	43	3.779	-30.157	10.391	1.00	0.00
ATOM	374	CA ARG	43	2.678	-29.510	9.692	1.00	0.00
ATOM	375	CB ARG	43	3.223	-28.663	8.543	1.00	0.00
ATOM	376	CG ARG	43	4.354	-27.768	9.057	1.00	0.00
ATOM	377	CD ARG	43	4.598	-26.636	8.074	1.00	0.00
ATOM	378	NE ARG	43	5.858	-25.948	8.367	1.00	0.00
ATOM	379	CZ ARG	43	6.015	-24.902	9.191	1.00	0.00
ATOM	380	NH1 ARG	43	4.991	-24.413	9.900	1.00	0.00
ATOM	381	NH2 ARG	43	7.217	-24.324	9.303	1.00	0.00
ATOM	382	C ARG	43	1.670	-30.546	9.209	1.00	0.00
ATOM	383	O ARG	43	1.997	-31.725	9.070	1.00	0.00
ATOM	384	N THR	44	0.439	-30.087	8.983	1.00	0.00
ATOM	385	CA THR	44	-0.698	-30.894	8.572	1.00	0.00
ATOM	386	CB THR	44	-1.843	-30.588	9.550	1.00	0.00
ATOM	387	CG2 THR	44	-1.440	-30.836	11.009	1.00	0.00
ATOM	388	OG1 THR	44	-2.221	-29.233	9.378	1.00	0.00
ATOM	389	C THR	44	-1.174	-30.546	7.164	1.00	0.00
ATOM	390	O THR	44	-0.703	-29.593	6.540	1.00	0.00
ATOM	391	N SER	45	-2.163	-31.317	6.698	1.00	0.00
ATOM	392	CA SER	45	-2.823	-31.108	5.420	1.00	0.00
ATOM	393	CB SER	45	-3.893	-32.195	5.223	1.00	0.00
ATOM	394	OG SER	45	-4.586	-32.046	3.999	1.00	0.00
ATOM	395	C SER	45	-3.406	-29.688	5.408	1.00	0.00
ATOM	396	O SER	45	-3.345	-29.005	4.389	1.00	0.00
ATOM	397	N VAL	46	-3.942	-29.236	6.555	1.00	0.00
ATOM	398	CA VAL	46	-4.499	-27.901	6.730	1.00	0.00

267					268				
ATOM	399	CB	VAL	46	-5.109	-27.737	8.138	1.00	0.00
ATOM	400	CG1	VAL	46	-5.658	-26.320	8.347	1.00	0.00
ATOM	401	CG2	VAL	46	-6.248	-28.731	8.383	1.00	0.00
ATOM	402	C	VAL	46	-3.405	-26.861	6.472	1.00	0.00
ATOM	403	O	VAL	46	-3.581	-25.999	5.616	1.00	0.00
ATOM	404	N	MET	47	-2.283	-26.941	7.202	1.00	0.00
ATOM	405	CA	MET	47	-1.162	-26.012	7.048	1.00	0.00
ATOM	406	CB	MET	47	0.042	-26.498	7.870	1.00	0.00
ATOM	407	CG	MET	47	0.071	-26.014	9.322	1.00	0.00
ATOM	408	SD	MET	47	-1.399	-26.359	10.320	1.00	0.00
ATOM	409	CE	MET	47	-0.783	-25.790	11.917	1.00	0.00
ATOM	410	C	MET	47	-0.752	-25.879	5.576	1.00	0.00
ATOM	411	O	MET	47	-0.692	-24.774	5.035	1.00	0.00
ATOM	412	N	LEU	48	-0.463	-27.017	4.939	1.00	0.00
ATOM	413	CA	LEU	48	-0.040	-27.096	3.547	1.00	0.00
ATOM	414	CB	LEU	48	0.203	-28.569	3.207	1.00	0.00
ATOM	415	CG	LEU	48	1.423	-29.136	3.953	1.00	0.00
ATOM	416	CD1	LEU	48	1.299	-30.646	4.141	1.00	0.00
ATOM	417	CD2	LEU	48	2.726	-28.876	3.194	1.00	0.00
ATOM	418	C	LEU	48	-1.075	-26.461	2.616	1.00	0.00
ATOM	419	O	LEU	48	-0.723	-25.626	1.782	1.00	0.00
ATOM	420	N	LYS	49	-2.347	-26.847	2.769	1.00	0.00
ATOM	421	CA	LYS	49	-3.463	-26.333	1.988	1.00	0.00
ATOM	422	CB	LYS	49	-4.763	-26.982	2.495	1.00	0.00
ATOM	423	CG	LYS	49	-6.063	-26.411	1.903	1.00	0.00
ATOM	424	CD	LYS	49	-6.690	-25.225	2.666	1.00	0.00
ATOM	425	CE	LYS	49	-6.992	-25.522	4.144	1.00	0.00
ATOM	426	NZ	LYS	49	-7.870	-24.500	4.750	1.00	0.00
ATOM	427	C	LYS	49	-3.514	-24.811	2.074	1.00	0.00
ATOM	428	O	LYS	49	-3.495	-24.135	1.046	1.00	0.00
ATOM	429	N	ASP	50	-3.590	-24.283	3.300	1.00	0.00
ATOM	430	CA	ASP	50	-3.675	-22.854	3.554	1.00	0.00
ATOM	431	CB	ASP	50	-3.796	-22.565	5.053	1.00	0.00
ATOM	432	CG	ASP	50	-5.189	-22.904	5.565	1.00	0.00
ATOM	433	OD1	ASP	50	-5.278	-23.725	6.500	1.00	0.00
ATOM	434	OD2	ASP	50	-6.164	-22.354	5.000	1.00	0.00
ATOM	435	C	ASP	50	-2.513	-22.107	2.922	1.00	0.00
ATOM	436	O	ASP	50	-2.722	-21.116	2.222	1.00	0.00
ATOM	437	N	ARG	51	-1.287	-22.576	3.159	1.00	0.00
ATOM	438	CA	ARG	51	-0.130	-21.916	2.592	1.00	0.00
ATOM	439	CB	ARG	51	1.159	-22.563	3.083	1.00	0.00
ATOM	440	CG	ARG	51	2.335	-21.694	2.619	1.00	0.00
ATOM	441	CD	ARG	51	3.630	-22.223	3.217	1.00	0.00
ATOM	442	NE	ARG	51	4.460	-21.139	3.743	1.00	0.00
ATOM	443	CZ	ARG	51	5.301	-20.374	3.043	1.00	0.00
ATOM	444	NH1	ARG	51	5.423	-20.534	1.722	1.00	0.00
ATOM	445	NH2	ARG	51	6.008	-19.447	3.691	1.00	0.00
ATOM	446	C	ARG	51	-0.179	-21.899	1.068	1.00	0.00
ATOM	447	O	ARG	51	0.042	-20.846	0.476	1.00	0.00
ATOM	448	N	TRP	52	-0.449	-23.040	0.421	1.00	0.00

	269						270	
ATOM	449	CA	TRP	52	-0.474	-23.067	-1.026	1.00 0.00
ATOM	450	CB	TRP	52	-0.592	-24.488	-1.565	1.00 0.00
ATOM	451	CG	TRP	52	-0.451	-24.527	-3.053	1.00 0.00
ATOM	452	CD1	TRP	52	-1.457	-24.751	-3.922	1.00 0.00
ATOM	453	NE1	TRP	52	-0.980	-24.711	-5.213	1.00 0.00
ATOM	454	CE2	TRP	52	0.373	-24.446	-5.241	1.00 0.00
ATOM	455	CZ2	TRP	52	1.298	-24.301	-6.285	1.00 0.00
ATOM	456	CH2	TRP	52	2.640	-24.026	-5.977	1.00 0.00
ATOM	457	CZ3	TRP	52	3.037	-23.901	-4.634	1.00 0.00
ATOM	458	CE3	TRP	52	2.100	-24.048	-3.593	1.00 0.00
ATOM	459	CD2	TRP	52	0.742	-24.324	-3.869	1.00 0.00
ATOM	460	C	TRP	52	-1.556	-22.153	-1.596	1.00 0.00
ATOM	461	O	TRP	52	-1.290	-21.461	-2.576	1.00 0.00
ATOM	462	N	ARG	53	-2.763	-22.125	-1.010	1.00 0.00
ATOM	463	CA	ARG	53	-3.798	-21.242	-1.532	1.00 0.00
ATOM	464	CB	ARG	53	-5.207	-21.586	-1.034	1.00 0.00
ATOM	465	CG	ARG	53	-5.431	-21.384	0.462	1.00 0.00
ATOM	466	CD	ARG	53	-6.838	-21.861	0.825	1.00 0.00
ATOM	467	NE	ARG	53	-7.118	-21.692	2.259	1.00 0.00
ATOM	468	CZ	ARG	53	-8.323	-21.422	2.778	1.00 0.00
ATOM	469	NH1	ARG	53	-8.414	-21.160	4.087	1.00 0.00
ATOM	470	NH2	ARG	53	-9.415	-21.426	2.006	1.00 0.00
ATOM	471	C	ARG	53	-3.385	-19.773	-1.367	1.00 0.00
ATOM	472	O	ARG	53	-3.562	-18.991	-2.301	1.00 0.00
ATOM	473	N	THR	54	-2.807	-19.392	-0.215	1.00 0.00
ATOM	474	CA	THR	54	-2.335	-18.027	-0.004	1.00 0.00
ATOM	475	CB	THR	54	-1.710	-17.861	1.395	1.00 0.00
ATOM	476	CG2	THR	54	-1.276	-16.410	1.626	1.00 0.00
ATOM	477	OG1	THR	54	-2.614	-18.209	2.419	1.00 0.00
ATOM	478	C	THR	54	-1.290	-17.685	-1.070	1.00 0.00
ATOM	479	O	THR	54	-1.392	-16.664	-1.750	1.00 0.00
ATOM	480	N	MET	55	-0.280	-18.551	-1.200	1.00 0.00
ATOM	481	CA	MET	55	0.814	-18.382	-2.134	1.00 0.00
ATOM	482	CB	MET	55	1.812	-19.543	-2.019	1.00 0.00
ATOM	483	CG	MET	55	3.107	-19.240	-2.795	1.00 0.00
ATOM	484	SD	MET	55	3.634	-20.457	-4.035	1.00 0.00
ATOM	485	CE	MET	55	2.252	-20.399	-5.204	1.00 0.00
ATOM	486	C	MET	55	0.309	-18.227	-3.564	1.00 0.00
ATOM	487	O	MET	55	0.673	-17.262	-4.223	1.00 0.00
ATOM	488	N	LYS	56	-0.504	-19.159	-4.067	1.00 0.00
ATOM	489	CA	LYS	56	-0.979	-19.080	-5.440	1.00 0.00
ATOM	490	CB	LYS	56	-1.621	-20.393	-5.901	1.00 0.00
ATOM	491	CG	LYS	56	-3.077	-20.582	-5.461	1.00 0.00
ATOM	492	CD	LYS	56	-3.601	-21.980	-5.825	1.00 0.00
ATOM	493	CE	LYS	56	-3.685	-22.165	-7.347	1.00 0.00
ATOM	494	NZ	LYS	56	-4.153	-23.505	-7.735	1.00 0.00
ATOM	495	C	LYS	56	-1.842	-17.843	-5.676	1.00 0.00
ATOM	496	O	LYS	56	-1.790	-17.272	-6.761	1.00 0.00
ATOM	497	N	LYS	57	-2.615	-17.419	-4.671	1.00 0.00
ATOM	498	CA	LYS	57	-3.455	-16.237	-4.775	1.00 0.00

(137)

特開2003-135087

271					272				
ATOM	499	CB	LYS	57	-4.355	-16.148	-3.532	1.00	0.00
ATOM	500	CG	LYS	57	-5.197	-14.866	-3.495	1.00	0.00
ATOM	501	CD	LYS	57	-6.117	-14.888	-2.266	1.00	0.00
ATOM	502	CE	LYS	57	-6.798	-13.535	-2.025	1.00	0.00
ATOM	503	NZ	LYS	57	-7.650	-13.124	-3.156	1.00	0.00
ATOM	504	C	LYS	57	-2.601	-14.978	-4.949	1.00	0.00
ATOM	505	O	LYS	57	-2.844	-14.193	-5.862	1.00	0.00
ATOM	506	N	LEU	58	-1.619	-14.773	-4.063	1.00	0.00
ATOM	507	CA	LEU	58	-0.762	-13.590	-4.075	1.00	0.00
ATOM	508	CB	LEU	58	-0.158	-13.381	-2.680	1.00	0.00
ATOM	509	CG	LEU	58	-1.222	-13.180	-1.582	1.00	0.00
ATOM	510	CD1	LEU	58	-0.524	-13.073	-0.226	1.00	0.00
ATOM	511	CD2	LEU	58	-2.061	-11.913	-1.796	1.00	0.00
ATOM	512	C	LEU	58	0.315	-13.630	-5.165	1.00	0.00
ATOM	513	O	LEU	58	0.484	-12.655	-5.893	1.00	0.00
ATOM	514	N	LYS	59	1.047	-14.743	-5.287	1.00	0.00
ATOM	515	CA	LYS	59	2.101	-14.920	-6.283	1.00	0.00
ATOM	516	CB	LYS	59	2.853	-16.232	-6.023	1.00	0.00
ATOM	517	CG	LYS	59	4.095	-16.374	-6.914	1.00	0.00
ATOM	518	CD	LYS	59	4.823	-17.686	-6.591	1.00	0.00
ATOM	519	CE	LYS	59	6.010	-17.932	-7.532	1.00	0.00
ATOM	520	NZ	LYS	59	7.054	-16.898	-7.398	1.00	0.00
ATOM	521	C	LYS	59	1.501	-14.908	-7.689	1.00	0.00
ATOM	522	O	LYS	59	2.128	-14.406	-8.618	1.00	0.00
ATOM	523	N	LEU	60	0.291	-15.466	-7.811	1.00	0.00
ATOM	524	CA	LEU	60	-0.516	-15.576	-9.012	1.00	0.00
ATOM	525	CB	LEU	60	-0.548	-14.271	-9.832	1.00	0.00
ATOM	526	CG	LEU	60	-1.637	-14.249	-10.921	1.00	0.00
ATOM	527	CD1	LEU	60	-3.055	-14.336	-10.341	1.00	0.00
ATOM	528	CD2	LEU	60	-1.507	-12.948	-11.721	1.00	0.00
ATOM	529	C	LEU	60	-0.180	-16.817	-9.832	1.00	0.00
ATOM	530	O	LEU	60	0.497	-16.735	-10.854	1.00	0.00
ATOM	531	N	ILE	61	-0.697	-17.963	-9.378	1.00	0.00
ATOM	532	CA	ILE	61	-0.574	-19.260	-10.032	1.00	0.00
ATOM	533	CB	ILE	61	0.498	-20.142	-9.353	1.00	0.00
ATOM	534	CG2	ILE	61	0.512	-21.558	-9.948	1.00	0.00
ATOM	535	CG1	ILE	61	1.870	-19.460	-9.536	1.00	0.00
ATOM	536	CD1	ILE	61	3.070	-20.348	-9.199	1.00	0.00
ATOM	537	C	ILE	61	-1.987	-19.855	-10.072	1.00	0.00
ATOM	538	O	ILE	61	-2.756	-19.699	-9.124	1.00	0.00
ATOM	539	N	SER	62	-2.330	-20.501	-11.190	1.00	0.00
ATOM	540	CA	SER	62	-3.620	-21.109	-11.477	1.00	0.00
ATOM	541	CB	SER	62	-4.030	-20.655	-12.890	1.00	0.00
ATOM	542	OG	SER	62	-5.323	-21.115	-13.226	1.00	0.00
ATOM	543	C	SER	62	-3.531	-22.632	-11.312	1.00	0.00
ATOM	544	O	SER	62	-3.106	-23.114	-10.262	1.00	0.00
ATOM	545	N	SER	63	-3.943	-23.393	-12.329	1.00	0.00
ATOM	546	CA	SER	63	-3.935	-24.847	-12.338	1.00	0.00
ATOM	547	CB	SER	63	-5.119	-25.383	-11.523	1.00	0.00
ATOM	548	OG	SER	63	-6.327	-24.792	-11.956	1.00	0.00

273					274				
ATOM	549	C	SER	63	-3.998	-25.318	-13.790	1.00	0.00
ATOM	550	O	SER	63	-5.072	-25.299	-14.391	1.00	0.00
ATOM	551	N	ASP	64	-2.850	-25.725	-14.341	1.00	0.00
ATOM	552	CA	ASP	64	-2.689	-26.184	-15.716	1.00	0.00
ATOM	553	CB	ASP	64	-3.337	-27.567	-15.905	1.00	0.00
ATOM	554	CG	ASP	64	-3.006	-28.193	-17.257	1.00	0.00
ATOM	555	OD1	ASP	64	-3.882	-28.915	-17.780	1.00	0.00
ATOM	556	OD2	ASP	64	-1.872	-27.965	-17.734	1.00	0.00
ATOM	557	C	ASP	64	-3.211	-25.119	-16.684	1.00	0.00
ATOM	558	O	ASP	64	-4.021	-25.394	-17.566	1.00	0.00
ATOM	559	N	SER	65	-2.751	-23.877	-16.497	1.00	0.00
ATOM	560	CA	SER	65	-3.135	-22.723	-17.294	1.00	0.00
ATOM	561	CB	SER	65	-4.488	-22.186	-16.804	1.00	0.00
ATOM	562	OG	SER	65	-5.544	-23.056	-17.162	1.00	0.00
ATOM	563	C	SER	65	-2.036	-21.667	-17.183	1.00	0.00
ATOM	564	O	SER	65	-2.203	-20.669	-16.484	1.00	0.00
ATOM	565	N	GLU	66	-0.920	-21.902	-17.886	1.00	0.00
ATOM	566	CA	GLU	66	0.248	-21.030	-17.924	1.00	0.00
ATOM	567	CB	GLU	66	-0.090	-19.719	-18.658	1.00	0.00
ATOM	568	CG	GLU	66	1.170	-18.962	-19.099	1.00	0.00
ATOM	569	CD	GLU	66	0.816	-17.728	-19.924	1.00	0.00
ATOM	570	OE1	GLU	66	1.029	-16.611	-19.405	1.00	0.00
ATOM	571	OE2	GLU	66	0.341	-17.926	-21.062	1.00	0.00
ATOM	572	C	GLU	66	0.796	-20.833	-16.507	1.00	0.00
ATOM	573	O	GLU	66	0.776	-19.728	-15.967	1.00	0.00
ATOM	574	N	ASP	67	1.275	-21.934	-15.916	1.00	0.00
ATOM	575	CA	ASP	67	1.816	-21.985	-14.566	1.00	0.00
ATOM	576	CB	ASP	67	1.004	-22.996	-13.747	1.00	0.00
ATOM	577	CG	ASP	67	-0.460	-22.586	-13.663	1.00	0.00
ATOM	578	OD1	ASP	67	-1.302	-23.348	-14.185	1.00	0.00
ATOM	579	OD2	ASP	67	-0.718	-21.512	-13.083	1.00	0.00
ATOM	580	C	ASP	67	3.288	-22.382	-14.616	1.00	0.00
ATOM	581	OT1	ASP	67	4.015	-21.823	-13.767	1.00	0.00
ATOM	582	OT2	ASP	67	3.514	-23.536	-15.044	1.00	0.00
ATOM	583	O5'	GUA	68	-6.080	-39.444	11.320	1.00	0.00
ATOM	584	C5'	GUA	68	-5.839	-40.238	10.176	1.00	0.00
ATOM	585	C4'	GUA	68	-6.297	-39.528	8.898	1.00	0.00
ATOM	586	O4'	GUA	68	-7.657	-39.148	8.979	1.00	0.00
ATOM	587	C1'	GUA	68	-7.897	-38.202	7.961	1.00	0.00
ATOM	588	N9	GUA	68	-9.121	-37.427	8.250	1.00	0.00
ATOM	589	C8	GUA	68	-9.465	-36.807	9.420	1.00	0.00
ATOM	590	N7	GUA	68	-10.643	-36.246	9.404	1.00	0.00
ATOM	591	C5	GUA	68	-11.109	-36.494	8.116	1.00	0.00
ATOM	592	C6	GUA	68	-12.339	-36.121	7.492	1.00	0.00
ATOM	593	O6	GUA	68	-13.306	-35.556	7.997	1.00	0.00
ATOM	594	N1	GUA	68	-12.378	-36.474	6.148	1.00	0.00
ATOM	595	C2	GUA	68	-11.372	-37.151	5.487	1.00	0.00
ATOM	596	N2	GUA	68	-11.539	-37.409	4.189	1.00	0.00
ATOM	597	N3	GUA	68	-10.236	-37.541	6.081	1.00	0.00
ATOM	598	C4	GUA	68	-10.164	-37.179	7.388	1.00	0.00

275				276			
ATOM	599	C3' GUA	68	-5.535	-38.230	8.587	1.00 0.00
ATOM	600	C2' GUA	68	-6.658	-37.333	8.048	1.00 0.00
ATOM	601	O3' GUA	68	-4.507	-38.525	7.651	1.00 0.00
ATOM	602	P THY	69	-3.553	-37.399	6.980	1.00 0.00
ATOM	603	OP1 THY	69	-3.229	-36.378	8.001	1.00 0.00
ATOM	604	OP2 THY	69	-2.463	-38.080	6.246	1.00 0.00
ATOM	605	O5' THY	69	-4.518	-36.722	5.886	1.00 0.00
ATOM	606	C5' THY	69	-5.271	-37.513	4.982	1.00 0.00
ATOM	607	C4' THY	69	-6.378	-36.681	4.331	1.00 0.00
ATOM	608	O4' THY	69	-7.409	-36.225	5.172	1.00 0.00
ATOM	609	C1' THY	69	-8.040	-35.134	4.545	1.00 0.00
ATOM	610	N1 THY	69	-8.883	-34.424	5.541	1.00 0.00
ATOM	611	C6 THY	69	-8.432	-34.261	6.830	1.00 0.00
ATOM	612	C5 THY	69	-9.207	-33.674	7.776	1.00 0.00
ATOM	613	C7 THY	69	-8.591	-33.504	9.153	1.00 0.00
ATOM	614	C4 THY	69	-10.553	-33.228	7.480	1.00 0.00
ATOM	615	O4 THY	69	-11.331	-32.708	8.275	1.00 0.00
ATOM	616	N3 THY	69	-10.936	-33.437	6.167	1.00 0.00
ATOM	617	C2 THY	69	-10.157	-34.000	5.167	1.00 0.00
ATOM	618	O2 THY	69	-10.594	-34.099	4.023	1.00 0.00
ATOM	619	C3' THY	69	-5.860	-35.427	3.617	1.00 0.00
ATOM	620	C2' THY	69	-6.818	-34.340	4.107	1.00 0.00
ATOM	621	O3' THY	69	-5.853	-35.620	2.213	1.00 0.00
ATOM	622	P THY	70	-5.074	-34.614	1.218	1.00 0.00
ATOM	623	OP1 THY	70	-3.998	-33.950	1.989	1.00 0.00
ATOM	624	OP2 THY	70	-4.716	-35.371	-0.006	1.00 0.00
ATOM	625	O5' THY	70	-6.173	-33.495	0.863	1.00 0.00
ATOM	626	C5' THY	70	-7.275	-33.763	0.015	1.00 0.00
ATOM	627	C4' THY	70	-8.351	-32.680	0.185	1.00 0.00
ATOM	628	O4' THY	70	-8.797	-32.633	1.525	1.00 0.00
ATOM	629	C1' THY	70	-9.482	-31.413	1.696	1.00 0.00
ATOM	630	N1 THY	70	-9.672	-31.105	3.137	1.00 0.00
ATOM	631	C6 THY	70	-8.607	-31.193	3.999	1.00 0.00
ATOM	632	C5 THY	70	-8.738	-30.879	5.310	1.00 0.00
ATOM	633	C7 THY	70	-7.478	-30.994	6.140	1.00 0.00
ATOM	634	C4 THY	70	-10.005	-30.452	5.867	1.00 0.00
ATOM	635	O4 THY	70	-10.195	-30.104	7.029	1.00 0.00
ATOM	636	N3 THY	70	-11.049	-30.464	4.956	1.00 0.00
ATOM	637	C2 THY	70	-10.937	-30.728	3.599	1.00 0.00
ATOM	638	O2 THY	70	-11.912	-30.598	2.864	1.00 0.00
ATOM	639	C3' THY	70	-7.871	-31.250	-0.100	1.00 0.00
ATOM	640	C2' THY	70	-8.560	-30.416	0.991	1.00 0.00
ATOM	641	O3' THY	70	-8.235	-30.857	-1.412	1.00 0.00
ATOM	642	P ADE	71	-7.768	-29.444	-2.040	1.00 0.00
ATOM	643	OP1 ADE	71	-7.924	-29.512	-3.508	1.00 0.00
ATOM	644	OP2 ADE	71	-6.459	-29.084	-1.452	1.00 0.00
ATOM	645	O5' ADE	71	-8.844	-28.404	-1.459	1.00 0.00
ATOM	646	C5' ADE	71	-10.183	-28.369	-1.909	1.00 0.00
ATOM	647	C4' ADE	71	-10.974	-27.357	-1.069	1.00 0.00
ATOM	648	O4' ADE	71	-11.228	-27.865	0.241	1.00 0.00

277

278

ATOM	649	C1'	ADE	71	-11.057	-26.805	1.157	1.00	0.00
ATOM	650	N9	ADE	71	-10.859	-27.212	2.568	1.00	0.00
ATOM	651	C8	ADE	71	-9.717	-27.715	3.128	1.00	0.00
ATOM	652	N7	ADE	71	-9.699	-27.738	4.428	1.00	0.00
ATOM	653	C5	ADE	71	-10.946	-27.239	4.762	1.00	0.00
ATOM	654	C6	ADE	71	-11.550	-26.981	6.002	1.00	0.00
ATOM	655	N6	ADE	71	-10.914	-27.225	7.148	1.00	0.00
ATOM	656	N1	ADE	71	-12.782	-26.441	6.027	1.00	0.00
ATOM	657	C2	ADE	71	-13.390	-26.195	4.866	1.00	0.00
ATOM	658	N3	ADE	71	-12.926	-26.388	3.632	1.00	0.00
ATOM	659	C4	ADE	71	-11.676	-26.927	3.643	1.00	0.00
ATOM	660	C3'	ADE	71	-10.200	-26.036	-0.871	1.00	0.00
ATOM	661	C2'	ADE	71	-9.772	-26.219	0.580	1.00	0.00
ATOM	662	O3'	ADE	71	-11.096	-24.955	-1.007	1.00	0.00
ATOM	663	P	GUA	72	-10.643	-23.408	-1.121	1.00	0.00
ATOM	664	OP1	GUA	72	-9.519	-23.123	-0.192	1.00	0.00
ATOM	665	OP2	GUA	72	-10.547	-23.029	-2.547	1.00	0.00
ATOM	666	O5'	GUA	72	-11.941	-22.723	-0.479	1.00	0.00
ATOM	667	C5'	GUA	72	-13.252	-22.987	-0.946	1.00	0.00
ATOM	668	C4'	GUA	72	-14.247	-22.652	0.169	1.00	0.00
ATOM	669	O4'	GUA	72	-13.939	-23.414	1.332	1.00	0.00
ATOM	670	C1'	GUA	72	-13.695	-22.568	2.442	1.00	0.00
ATOM	671	N9	GUA	72	-12.592	-23.101	3.278	1.00	0.00
ATOM	672	C8	GUA	72	-11.374	-23.567	2.862	1.00	0.00
ATOM	673	N7	GUA	72	-10.545	-23.880	3.822	1.00	0.00
ATOM	674	C5	GUA	72	-11.285	-23.618	4.972	1.00	0.00
ATOM	675	C6	GUA	72	-10.934	-23.783	6.345	1.00	0.00
ATOM	676	O6	GUA	72	-9.868	-24.201	6.799	1.00	0.00
ATOM	677	N1	GUA	72	-11.962	-23.415	7.207	1.00	0.00
ATOM	678	C2	GUA	72	-13.194	-22.942	6.795	1.00	0.00
ATOM	679	N2	GUA	72	-14.059	-22.542	7.726	1.00	0.00
ATOM	680	N3	GUA	72	-13.523	-22.783	5.506	1.00	0.00
ATOM	681	C4	GUA	72	-12.535	-23.142	4.649	1.00	0.00
ATOM	682	C3'	GUA	72	-14.167	-21.181	0.580	1.00	0.00
ATOM	683	C2'	GUA	72	-13.257	-21.258	1.803	1.00	0.00
ATOM	684	O3'	GUA	72	-15.468	-20.713	0.886	1.00	0.00
ATOM	685	P	GUA	73	-15.776	-19.152	1.155	1.00	0.00
ATOM	686	OP1	GUA	73	-17.203	-18.907	0.849	1.00	0.00
ATOM	687	OP2	GUA	73	-14.732	-18.344	0.489	1.00	0.00
ATOM	688	O5'	GUA	73	-15.572	-19.023	2.745	1.00	0.00
ATOM	689	C5'	GUA	73	-16.526	-19.547	3.647	1.00	0.00
ATOM	690	C4'	GUA	73	-16.074	-19.296	5.085	1.00	0.00
ATOM	691	O4'	GUA	73	-14.845	-19.950	5.333	1.00	0.00
ATOM	692	C1'	GUA	73	-14.129	-19.202	6.287	1.00	0.00
ATOM	693	N9	GUA	73	-12.704	-19.594	6.238	1.00	0.00
ATOM	694	C8	GUA	73	-11.897	-19.713	5.137	1.00	0.00
ATOM	695	N7	GUA	73	-10.719	-20.214	5.379	1.00	0.00
ATOM	696	C5	GUA	73	-10.732	-20.411	6.756	1.00	0.00
ATOM	697	C6	GUA	73	-9.719	-20.927	7.614	1.00	0.00
ATOM	698	O6	GUA	73	-8.600	-21.317	7.293	1.00	0.00

279				280					
ATOM	699	N1	GUA	73	-10.114	-20.964	8.948	1.00	0.00
ATOM	700	C2	GUA	73	-11.347	-20.543	9.406	1.00	0.00
ATOM	701	N2	GUA	73	-11.568	-20.561	10.723	1.00	0.00
ATOM	702	N3	GUA	73	-12.303	-20.064	8.601	1.00	0.00
ATOM	703	C4	GUA	73	-11.936	-20.021	7.293	1.00	0.00
ATOM	704	C3'	GUA	73	-15.834	-17.808	5.398	1.00	0.00
ATOM	705	C2'	GUA	73	-14.350	-17.782	5.783	1.00	0.00
ATOM	706	O3'	GUA	73	-16.716	-17.432	6.442	1.00	0.00
ATOM	707	P	GUA	74	-16.797	-15.925	7.013	1.00	0.00
ATOM	708	OP1	GUA	74	-18.136	-15.722	7.607	1.00	0.00
ATOM	709	OP2	GUA	74	-16.296	-14.990	5.981	1.00	0.00
ATOM	710	O5'	GUA	74	-15.718	-15.993	8.202	1.00	0.00
ATOM	711	C5'	GUA	74	-15.954	-16.779	9.353	1.00	0.00
ATOM	712	C4'	GUA	74	-14.720	-16.769	10.254	1.00	0.00
ATOM	713	O4'	GUA	74	-13.606	-17.345	9.599	1.00	0.00
ATOM	714	C1'	GUA	74	-12.442	-16.814	10.191	1.00	0.00
ATOM	715	N9	GUA	74	-11.267	-17.061	9.326	1.00	0.00
ATOM	716	C8	GUA	74	-11.154	-16.847	7.976	1.00	0.00
ATOM	717	N7	GUA	74	-10.009	-17.208	7.470	1.00	0.00
ATOM	718	C5	GUA	74	-9.304	-17.702	8.562	1.00	0.00
ATOM	719	C6	GUA	74	-7.996	-18.271	8.631	1.00	0.00
ATOM	720	O6	GUA	74	-7.189	-18.427	7.718	1.00	0.00
ATOM	721	N1	GUA	74	-7.660	-18.686	9.914	1.00	0.00
ATOM	722	C2	GUA	74	-8.481	-18.554	11.015	1.00	0.00
ATOM	723	N2	GUA	74	-7.993	-18.938	12.196	1.00	0.00
ATOM	724	N3	GUA	74	-9.704	-18.010	10.956	1.00	0.00
ATOM	725	C4	GUA	74	-10.063	-17.613	9.705	1.00	0.00
ATOM	726	C3'	GUA	74	-14.276	-15.354	10.659	1.00	0.00
ATOM	727	C2'	GUA	74	-12.803	-15.334	10.235	1.00	0.00
ATOM	728	O3'	GUA	74	-14.492	-15.203	12.050	1.00	0.00
ATOM	729	P	THY	75	-14.136	-13.847	12.846	1.00	0.00
ATOM	730	OP1	THY	75	-14.004	-12.737	11.877	1.00	0.00
ATOM	731	OP2	THY	75	-15.063	-13.723	13.992	1.00	0.00
ATOM	732	O5'	THY	75	-12.678	-14.201	13.415	1.00	0.00
ATOM	733	C5'	THY	75	-12.506	-15.249	14.349	1.00	0.00
ATOM	734	C4'	THY	75	-11.017	-15.486	14.588	1.00	0.00
ATOM	735	O4'	THY	75	-10.360	-15.768	13.366	1.00	0.00
ATOM	736	C1'	THY	75	-9.010	-15.389	13.505	1.00	0.00
ATOM	737	N1	THY	75	-8.352	-15.259	12.176	1.00	0.00
ATOM	738	C6	THY	75	-9.007	-14.639	11.136	1.00	0.00
ATOM	739	C5	THY	75	-8.456	-14.572	9.899	1.00	0.00
ATOM	740	C7	THY	75	-9.281	-13.863	8.840	1.00	0.00
ATOM	741	C4	THY	75	-7.158	-15.150	9.615	1.00	0.00
ATOM	742	O4	THY	75	-6.608	-15.188	8.517	1.00	0.00
ATOM	743	N3	THY	75	-6.547	-15.714	10.719	1.00	0.00
ATOM	744	C2	THY	75	-7.076	-15.796	11.997	1.00	0.00
ATOM	745	O2	THY	75	-6.430	-16.324	12.898	1.00	0.00
ATOM	746	C3'	THY	75	-10.301	-14.263	15.183	1.00	0.00
ATOM	747	C2'	THY	75	-9.156	-14.038	14.192	1.00	0.00
ATOM	748	O3'	THY	75	-9.884	-14.593	16.497	1.00	0.00

281				282				
ATOM	749	P	THY	76	-8.976	-13.621	17.411	1.00 0.00
ATOM	750	OP1	THY	76	-9.401	-13.772	18.819	1.00 0.00
ATOM	751	OP2	THY	76	-8.920	-12.277	16.790	1.00 0.00
ATOM	752	O5'	THY	76	-7.535	-14.314	17.240	1.00 0.00
ATOM	753	C5'	THY	76	-7.335	-15.664	17.613	1.00 0.00
ATOM	754	C4'	THY	76	-5.913	-16.102	17.260	1.00 0.00
ATOM	755	O4'	THY	76	-5.679	-15.845	15.887	1.00 0.00
ATOM	756	C1'	THY	76	-4.474	-15.132	15.713	1.00 0.00
ATOM	757	N1	THY	76	-4.592	-14.294	14.483	1.00 0.00
ATOM	758	C6	THY	76	-5.542	-13.300	14.401	1.00 0.00
ATOM	759	C5	THY	76	-5.794	-12.656	13.233	1.00 0.00
ATOM	760	C7	THY	76	-6.851	-11.566	13.252	1.00 0.00
ATOM	761	C4	THY	76	-5.088	-12.994	12.016	1.00 0.00
ATOM	762	O4	THY	76	-5.288	-12.499	10.909	1.00 0.00
ATOM	763	N3	THY	76	-4.129	-13.975	12.182	1.00 0.00
ATOM	764	C2	THY	76	-3.837	-14.642	13.361	1.00 0.00
ATOM	765	O2	THY	76	-2.944	-15.487	13.378	1.00 0.00
ATOM	766	C3'	THY	76	-4.845	-15.332	18.047	1.00 0.00
ATOM	767	C2'	THY	76	-4.330	-14.332	17.012	1.00 0.00
ATOM	768	O3'	THY	76	-3.854	-16.246	18.480	1.00 0.00
ATOM	769	P	ADE	77	-2.662	-15.812	19.477	1.00 0.00
ATOM	770	OP1	ADE	77	-3.039	-14.553	20.155	1.00 0.00
ATOM	771	OP2	ADE	77	-2.271	-16.995	20.274	1.00 0.00
ATOM	772	O5'	ADE	77	-1.480	-15.491	18.438	1.00 0.00
ATOM	773	C5'	ADE	77	-0.777	-16.538	17.803	1.00 0.00
ATOM	774	C4'	ADE	77	0.202	-15.959	16.784	1.00 0.00
ATOM	775	O4'	ADE	77	-0.496	-15.291	15.749	1.00 0.00
ATOM	776	C1'	ADE	77	0.305	-14.232	15.282	1.00 0.00
ATOM	777	N9	ADE	77	-0.518	-13.284	14.495	1.00 0.00
ATOM	778	C8	ADE	77	-1.645	-12.604	14.891	1.00 0.00
ATOM	779	N7	ADE	77	-2.239	-11.942	13.939	1.00 0.00
ATOM	780	C5	ADE	77	-1.428	-12.169	12.834	1.00 0.00
ATOM	781	C6	ADE	77	-1.496	-11.736	11.496	1.00 0.00
ATOM	782	N6	ADE	77	-2.498	-10.979	11.045	1.00 0.00
ATOM	783	N1	ADE	77	-0.519	-12.103	10.644	1.00 0.00
ATOM	784	C2	ADE	77	0.461	-12.880	11.099	1.00 0.00
ATOM	785	N3	ADE	77	0.616	-13.393	12.319	1.00 0.00
ATOM	786	C4	ADE	77	-0.367	-12.973	13.162	1.00 0.00
ATOM	787	C3'	ADE	77	1.163	-14.922	17.384	1.00 0.00
ATOM	788	C2'	ADE	77	0.793	-13.653	16.605	1.00 0.00
ATOM	789	O3'	ADE	77	2.495	-15.372	17.184	1.00 0.00
ATOM	790	P	GUA	78	3.747	-14.553	17.769	1.00 0.00
ATOM	791	OP1	GUA	78	3.312	-13.780	18.950	1.00 0.00
ATOM	792	OP2	GUA	78	4.937	-15.429	17.873	1.00 0.00
ATOM	793	O5'	GUA	78	4.026	-13.510	16.600	1.00 0.00
ATOM	794	C5'	GUA	78	4.791	-13.837	15.461	1.00 0.00
ATOM	795	C4'	GUA	78	5.004	-12.544	14.680	1.00 0.00
ATOM	796	O4'	GUA	78	3.776	-12.080	14.170	1.00 0.00
ATOM	797	C1'	GUA	78	3.896	-10.692	13.971	1.00 0.00
ATOM	798	N9	GUA	78	2.543	-10.133	13.773	1.00 0.00

283				284					
ATOM	799	C8	GUA	78	1.431	-10.266	14.566	1.00	0.00
ATOM	800	N7	GUA	78	0.337	-9.801	14.031	1.00	0.00
ATOM	801	C5	GUA	78	0.748	-9.316	12.795	1.00	0.00
ATOM	802	C6	GUA	78	0.005	-8.684	11.752	1.00	0.00
ATOM	803	O6	GUA	78	-1.195	-8.419	11.728	1.00	0.00
ATOM	804	N1	GUA	78	0.804	-8.335	10.667	1.00	0.00
ATOM	805	C2	GUA	78	2.164	-8.558	10.595	1.00	0.00
ATOM	806	N2	GUA	78	2.820	-8.142	9.511	1.00	0.00
ATOM	807	N3	GUA	78	2.863	-9.153	11.570	1.00	0.00
ATOM	808	C4	GUA	78	2.100	-9.504	12.637	1.00	0.00
ATOM	809	C3'	GUA	78	5.522	-11.402	15.572	1.00	0.00
ATOM	810	C2'	GUA	78	4.574	-10.239	15.259	1.00	0.00
ATOM	811	O3'	GUA	78	6.891	-11.186	15.281	1.00	0.00
ATOM	812	P	GUA	79	7.825	-10.244	16.197	1.00	0.00
ATOM	813	OP1	GUA	79	9.232	-10.617	15.943	1.00	0.00
ATOM	814	OP2	GUA	79	7.299	-10.291	17.584	1.00	0.00
ATOM	815	O5'	GUA	79	7.548	-8.799	15.543	1.00	0.00
ATOM	816	C5'	GUA	79	8.052	-8.495	14.252	1.00	0.00
ATOM	817	C4'	GUA	79	7.361	-7.278	13.632	1.00	0.00
ATOM	818	O4'	GUA	79	5.968	-7.481	13.503	1.00	0.00
ATOM	819	C1'	GUA	79	5.363	-6.217	13.351	1.00	0.00
ATOM	820	N9	GUA	79	3.908	-6.312	13.622	1.00	0.00
ATOM	821	C8	GUA	79	3.304	-6.873	14.717	1.00	0.00
ATOM	822	N7	GUA	79	2.005	-6.808	14.707	1.00	0.00
ATOM	823	C5	GUA	79	1.716	-6.171	13.507	1.00	0.00
ATOM	824	C6	GUA	79	0.452	-5.832	12.938	1.00	0.00
ATOM	825	O6	GUA	79	-0.663	-5.981	13.430	1.00	0.00
ATOM	826	N1	GUA	79	0.568	-5.278	11.669	1.00	0.00
ATOM	827	C2	GUA	79	1.768	-5.040	11.032	1.00	0.00
ATOM	828	N2	GUA	79	1.711	-4.508	9.809	1.00	0.00
ATOM	829	N3	GUA	79	2.963	-5.316	11.582	1.00	0.00
ATOM	830	C4	GUA	79	2.871	-5.889	12.816	1.00	0.00
ATOM	831	C3'	GUA	79	7.517	-5.984	14.443	1.00	0.00
ATOM	832	C2'	GUA	79	6.094	-5.408	14.420	1.00	0.00
ATOM	833	O3'	GUA	79	8.492	-5.172	13.807	1.00	0.00
ATOM	834	P	GUA	80	8.912	-3.707	14.346	1.00	0.00
ATOM	835	OP1	GUA	80	10.271	-3.402	13.848	1.00	0.00
ATOM	836	OP2	GUA	80	8.618	-3.626	15.793	1.00	0.00
ATOM	837	O5'	GUA	80	7.872	-2.759	13.565	1.00	0.00
ATOM	838	C5'	GUA	80	7.892	-2.668	12.154	1.00	0.00
ATOM	839	C4'	GUA	80	6.643	-1.938	11.658	1.00	0.00
ATOM	840	O4'	GUA	80	5.479	-2.621	12.093	1.00	0.00
ATOM	841	C1'	GUA	80	4.488	-1.661	12.375	1.00	0.00
ATOM	842	N9	GUA	80	3.419	-2.227	13.223	1.00	0.00
ATOM	843	C8	GUA	80	3.527	-2.804	14.461	1.00	0.00
ATOM	844	N7	GUA	80	2.389	-3.145	14.996	1.00	0.00
ATOM	845	C5	GUA	80	1.451	-2.778	14.038	1.00	0.00
ATOM	846	C6	GUA	80	0.028	-2.886	14.055	1.00	0.00
ATOM	847	O6	GUA	80	-0.690	-3.316	14.956	1.00	0.00
ATOM	848	N1	GUA	80	-0.550	-2.440	12.873	1.00	0.00

285					286				
ATOM	849	C2	GUA	80	0.153	-1.928	11.801	1.00	0.00
ATOM	850	N2	GUA	80	-0.544	-1.532	10.735	1.00	0.00
ATOM	851	N3	GUA	80	1.486	-1.794	11.795	1.00	0.00
ATOM	852	C4	GUA	80	2.075	-2.240	12.937	1.00	0.00
ATOM	853	C3'	GUA	80	6.521	-0.505	12.204	1.00	0.00
ATOM	854	C2'	GUA	80	5.301	-0.600	13.114	1.00	0.00
ATOM	855	O3'	GUA	80	6.259	0.402	11.153	1.00	0.00
ATOM	856	O5'	CYT	81	-9.611	0.653	12.362	1.00	0.00
ATOM	857	C5'	CYT	81	-8.900	1.554	11.540	1.00	0.00
ATOM	858	C4'	CYT	81	-7.623	0.897	11.008	1.00	0.00
ATOM	859	O4'	CYT	81	-6.838	0.380	12.059	1.00	0.00
ATOM	860	C1'	CYT	81	-5.914	-0.508	11.470	1.00	0.00
ATOM	861	N1	CYT	81	-5.295	-1.392	12.486	1.00	0.00
ATOM	862	C6	CYT	81	-6.072	-1.996	13.442	1.00	0.00
ATOM	863	C5	CYT	81	-5.543	-2.845	14.351	1.00	0.00
ATOM	864	C4	CYT	81	-4.127	-3.070	14.282	1.00	0.00
ATOM	865	N4	CYT	81	-3.526	-3.878	15.158	1.00	0.00
ATOM	866	N3	CYT	81	-3.379	-2.493	13.334	1.00	0.00
ATOM	867	C2	CYT	81	-3.931	-1.664	12.406	1.00	0.00
ATOM	868	O2	CYT	81	-3.229	-1.189	11.517	1.00	0.00
ATOM	869	C3'	CYT	81	-7.877	-0.314	10.098	1.00	0.00
ATOM	870	C2'	CYT	81	-6.796	-1.312	10.523	1.00	0.00
ATOM	871	O3'	CYT	81	-7.777	0.101	8.747	1.00	0.00
ATOM	872	P	CYT	82	-8.012	-0.908	7.510	1.00	0.00
ATOM	873	OP1	CYT	82	-8.756	-2.086	8.009	1.00	0.00
ATOM	874	OP2	CYT	82	-8.547	-0.125	6.376	1.00	0.00
ATOM	875	O5'	CYT	82	-6.512	-1.380	7.145	1.00	0.00
ATOM	876	C5'	CYT	82	-5.591	-0.501	6.523	1.00	0.00
ATOM	877	C4'	CYT	82	-4.271	-1.224	6.224	1.00	0.00
ATOM	878	O4'	CYT	82	-3.677	-1.665	7.427	1.00	0.00
ATOM	879	C1'	CYT	82	-3.072	-2.930	7.248	1.00	0.00
ATOM	880	N1	CYT	82	-3.098	-3.615	8.566	1.00	0.00
ATOM	881	C6	CYT	82	-4.294	-3.719	9.227	1.00	0.00
ATOM	882	C5	CYT	82	-4.394	-4.284	10.444	1.00	0.00
ATOM	883	C4	CYT	82	-3.179	-4.779	11.027	1.00	0.00
ATOM	884	N4	CYT	82	-3.220	-5.440	12.185	1.00	0.00
ATOM	885	N3	CYT	82	-1.998	-4.631	10.408	1.00	0.00
ATOM	886	C2	CYT	82	-1.917	-4.050	9.174	1.00	0.00
ATOM	887	O2	CYT	82	-0.824	-3.929	8.623	1.00	0.00
ATOM	888	C3'	CYT	82	-4.468	-2.470	5.347	1.00	0.00
ATOM	889	C2'	CYT	82	-3.995	-3.619	6.238	1.00	0.00
ATOM	890	O3'	CYT	82	-3.715	-2.316	4.154	1.00	0.00
ATOM	891	P	CYT	83	-3.887	-3.302	2.887	1.00	0.00
ATOM	892	OP1	CYT	83	-5.187	-3.999	2.999	1.00	0.00
ATOM	893	OP2	CYT	83	-3.562	-2.540	1.660	1.00	0.00
ATOM	894	O5'	CYT	83	-2.720	-4.379	3.136	1.00	0.00
ATOM	895	C5'	CYT	83	-1.395	-4.153	2.692	1.00	0.00
ATOM	896	C4'	CYT	83	-0.468	-5.212	3.296	1.00	0.00
ATOM	897	O4'	CYT	83	-0.551	-5.141	4.705	1.00	0.00
ATOM	898	C1'	CYT	83	-0.088	-6.352	5.263	1.00	0.00

287					288				
ATOM	899	N1	CYT	83	-0.913	-6.687	6.452	1.00	0.00
ATOM	900	C6	CYT	83	-2.278	-6.696	6.345	1.00	0.00
ATOM	901	C5	CYT	83	-3.074	-6.978	7.399	1.00	0.00
ATOM	902	C4	CYT	83	-2.418	-7.325	8.627	1.00	0.00
ATOM	903	N4	CYT	83	-3.131	-7.674	9.699	1.00	0.00
ATOM	904	N3	CYT	83	-1.082	-7.321	8.727	1.00	0.00
ATOM	905	C2	CYT	83	-0.300	-6.989	7.662	1.00	0.00
ATOM	906	O2	CYT	83	0.922	-6.967	7.783	1.00	0.00
ATOM	907	C3'	CYT	83	-0.895	-6.647	2.982	1.00	0.00
ATOM	908	C2'	CYT	83	-0.298	-7.401	4.170	1.00	0.00
ATOM	909	O3'	CYT	83	-0.389	-7.093	1.735	1.00	0.00
ATOM	910	P	THY	84	-0.738	-8.558	1.137	1.00	0.00
ATOM	911	OP1	THY	84	-0.356	-8.577	-0.292	1.00	0.00
ATOM	912	OP2	THY	84	-2.120	-8.914	1.532	1.00	0.00
ATOM	913	O5'	THY	84	0.260	-9.541	1.931	1.00	0.00
ATOM	914	C5'	THY	84	1.665	-9.433	1.803	1.00	0.00
ATOM	915	C4'	THY	84	2.347	-10.436	2.741	1.00	0.00
ATOM	916	O4'	THY	84	1.809	-10.300	4.048	1.00	0.00
ATOM	917	C1'	THY	84	1.416	-11.558	4.560	1.00	0.00
ATOM	918	N1	THY	84	0.280	-11.376	5.514	1.00	0.00
ATOM	919	C6	THY	84	-0.915	-10.849	5.076	1.00	0.00
ATOM	920	C5	THY	84	-1.930	-10.591	5.936	1.00	0.00
ATOM	921	C7	THY	84	-3.212	-10.058	5.320	1.00	0.00
ATOM	922	C4	THY	84	-1.801	-10.834	7.358	1.00	0.00
ATOM	923	O4	THY	84	-2.656	-10.590	8.202	1.00	0.00
ATOM	924	N3	THY	84	-0.586	-11.389	7.728	1.00	0.00
ATOM	925	C2	THY	84	0.472	-11.671	6.869	1.00	0.00
ATOM	926	O2	THY	84	1.509	-12.153	7.316	1.00	0.00
ATOM	927	C3'	THY	84	2.113	-11.891	2.312	1.00	0.00
ATOM	928	C2'	THY	84	1.039	-12.347	3.302	1.00	0.00
ATOM	929	O3'	THY	84	3.331	-12.611	2.404	1.00	0.00
ATOM	930	P	ADE	85	3.484	-14.128	1.864	1.00	0.00
ATOM	931	OP1	ADE	85	2.534	-14.346	0.752	1.00	0.00
ATOM	932	OP2	ADE	85	4.923	-14.410	1.669	1.00	0.00
ATOM	933	O5'	ADE	85	2.980	-14.969	3.136	1.00	0.00
ATOM	934	C5'	ADE	85	3.740	-14.978	4.325	1.00	0.00
ATOM	935	C4'	ADE	85	2.926	-15.552	5.481	1.00	0.00
ATOM	936	O4'	ADE	85	1.774	-14.785	5.766	1.00	0.00
ATOM	937	C1'	ADE	85	0.860	-15.667	6.370	1.00	0.00
ATOM	938	N9	ADE	85	-0.472	-15.053	6.503	1.00	0.00
ATOM	939	C8	ADE	85	-1.256	-14.476	5.539	1.00	0.00
ATOM	940	N7	ADE	85	-2.365	-13.959	5.990	1.00	0.00
ATOM	941	C5	ADE	85	-2.311	-14.214	7.356	1.00	0.00
ATOM	942	C6	ADE	85	-3.168	-13.905	8.432	1.00	0.00
ATOM	943	N6	ADE	85	-4.305	-13.221	8.286	1.00	0.00
ATOM	944	N1	ADE	85	-2.814	-14.301	9.669	1.00	0.00
ATOM	945	C2	ADE	85	-1.670	-14.954	9.834	1.00	0.00
ATOM	946	N3	ADE	85	-0.774	-15.296	8.919	1.00	0.00
ATOM	947	C4	ADE	85	-1.161	-14.888	7.679	1.00	0.00
ATOM	948	C3'	ADE	85	2.419	-16.987	5.261	1.00	0.00

289				290				
ATOM	949	C2' ADE	85	0.906	-16.806	5.360	1.00	0.00
ATOM	950	O3' ADE	85	2.891	-17.741	6.358	1.00	0.00
ATOM	951	P ADE	86	3.121	-19.324	6.301	1.00	0.00
ATOM	952	OP1 ADE	86	4.552	-19.574	5.999	1.00	0.00
ATOM	953	OP2 ADE	86	2.077	-19.936	5.454	1.00	0.00
ATOM	954	O5' ADE	86	2.819	-19.728	7.825	1.00	0.00
ATOM	955	C5' ADE	86	3.526	-19.150	8.903	1.00	0.00
ATOM	956	C4' ADE	86	2.780	-19.430	10.208	1.00	0.00
ATOM	957	O4' ADE	86	1.574	-18.683	10.218	1.00	0.00
ATOM	958	C1' ADE	86	0.441	-19.518	10.354	1.00	0.00
ATOM	959	N9 ADE	86	-0.640	-19.020	9.466	1.00	0.00
ATOM	960	C8 ADE	86	-0.653	-18.951	8.093	1.00	0.00
ATOM	961	N7 ADE	86	-1.720	-18.399	7.585	1.00	0.00
ATOM	962	C5 ADE	86	-2.474	-18.069	8.702	1.00	0.00
ATOM	963	C6 ADE	86	-3.720	-17.429	8.859	1.00	0.00
ATOM	964	N6 ADE	86	-4.440	-16.983	7.827	1.00	0.00
ATOM	965	N1 ADE	86	-4.189	-17.237	10.105	1.00	0.00
ATOM	966	C2 ADE	86	-3.464	-17.654	11.137	1.00	0.00
ATOM	967	N3 ADE	86	-2.278	-18.253	11.126	1.00	0.00
ATOM	968	C4 ADE	86	-1.825	-18.436	9.856	1.00	0.00
ATOM	969	C3' ADE	86	2.395	-20.904	10.388	1.00	0.00
ATOM	970	C2' ADE	86	0.927	-20.913	9.958	1.00	0.00
ATOM	971	O3' ADE	86	2.625	-21.259	11.739	1.00	0.00
ATOM	972	P CYT	87	2.414	-22.755	12.300	1.00	0.00
ATOM	973	OP1 CYT	87	2.577	-23.719	11.184	1.00	0.00
ATOM	974	OP2 CYT	87	3.237	-22.898	13.522	1.00	0.00
ATOM	975	O5' CYT	87	0.867	-22.691	12.732	1.00	0.00
ATOM	976	C5' CYT	87	0.470	-21.860	13.805	1.00	0.00
ATOM	977	C4' CYT	87	-1.045	-21.654	13.854	1.00	0.00
ATOM	978	O4' CYT	87	-1.545	-21.117	12.649	1.00	0.00
ATOM	979	C1' CYT	87	-2.942	-21.320	12.661	1.00	0.00
ATOM	980	N1 CYT	87	-3.537	-21.168	11.308	1.00	0.00
ATOM	981	C6 CYT	87	-2.880	-21.652	10.203	1.00	0.00
ATOM	982	C5 CYT	87	-3.368	-21.462	8.953	1.00	0.00
ATOM	983	C4 CYT	87	-4.600	-20.735	8.840	1.00	0.00
ATOM	984	N4 CYT	87	-5.099	-20.435	7.642	1.00	0.00
ATOM	985	N3 CYT	87	-5.258	-20.305	9.924	1.00	0.00
ATOM	986	C2 CYT	87	-4.770	-20.528	11.174	1.00	0.00
ATOM	987	O2 CYT	87	-5.413	-20.148	12.152	1.00	0.00
ATOM	988	C3' CYT	87	-1.838	-22.944	14.071	1.00	0.00
ATOM	989	C2' CYT	87	-3.039	-22.761	13.139	1.00	0.00
ATOM	990	O3' CYT	87	-2.177	-23.053	15.442	1.00	0.00
ATOM	991	P CYT	88	-2.955	-24.336	16.040	1.00	0.00
ATOM	992	OP1 CYT	88	-2.666	-24.416	17.488	1.00	0.00
ATOM	993	OP2 CYT	88	-2.686	-25.499	15.164	1.00	0.00
ATOM	994	O5' CYT	88	-4.496	-23.915	15.853	1.00	0.00
ATOM	995	C5' CYT	88	-5.064	-22.854	16.597	1.00	0.00
ATOM	996	C4' CYT	88	-6.462	-22.534	16.061	1.00	0.00
ATOM	997	O4' CYT	88	-6.389	-22.187	14.694	1.00	0.00
ATOM	998	C1' CYT	88	-7.604	-22.538	14.073	1.00	0.00

291					292				
ATOM	999	N1	CYT	88	-7.385	-22.718	12.620	1.00	0.00
ATOM	1000	C6	CYT	88	-6.313	-23.453	12.189	1.00	0.00
ATOM	1001	C5	CYT	88	-6.057	-23.642	10.881	1.00	0.00
ATOM	1002	C4	CYT	88	-6.972	-23.036	9.952	1.00	0.00
ATOM	1003	N4	CYT	88	-6.801	-23.140	8.637	1.00	0.00
ATOM	1004	N3	CYT	88	-8.052	-22.367	10.381	1.00	0.00
ATOM	1005	C2	CYT	88	-8.300	-22.203	11.710	1.00	0.00
ATOM	1006	O2	CYT	88	-9.321	-21.628	12.075	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.428	-23.728	16.138	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.915	-23.888	14.703	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.460	-23.413	17.058	1.00	0.00
ATOM	1010	P	CYT	89	-9.711	-24.392	17.349	1.00	0.00
ATOM	1011	OP1	CYT	89	-10.213	-24.107	18.711	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.325	-25.772	16.979	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.815	-23.882	16.289	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.391	-22.591	16.384	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.418	-22.389	15.264	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.787	-22.521	14.006	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.657	-23.140	13.082	1.00	0.00
ATOM	1018	N1	CYT	89	-11.829	-23.868	12.090	1.00	0.00
ATOM	1019	C6	CYT	89	-10.794	-24.648	12.531	1.00	0.00
ATOM	1020	C5	CYT	89	-9.909	-25.206	11.681	1.00	0.00
ATOM	1021	C4	CYT	89	-10.104	-24.946	10.283	1.00	0.00
ATOM	1022	N4	CYT	89	-9.253	-25.431	9.379	1.00	0.00
ATOM	1023	N3	CYT	89	-11.160	-24.242	9.849	1.00	0.00
ATOM	1024	C2	CYT	89	-12.059	-23.709	10.727	1.00	0.00
ATOM	1025	O2	CYT	89	-13.050	-23.120	10.307	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.544	-23.433	15.298	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.442	-24.121	13.942	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.783	-22.771	15.502	1.00	0.00
ATOM	1029	P	THY	90	-16.187	-23.560	15.663	1.00	0.00
ATOM	1030	OP1	THY	90	-15.907	-24.911	16.197	1.00	0.00
ATOM	1031	OP2	THY	90	-17.134	-22.672	16.371	1.00	0.00
ATOM	1032	O5'	THY	90	-16.695	-23.718	14.142	1.00	0.00
ATOM	1033	C5'	THY	90	-17.083	-22.593	13.375	1.00	0.00
ATOM	1034	C4'	THY	90	-17.307	-23.001	11.915	1.00	0.00
ATOM	1035	O4'	THY	90	-16.125	-23.569	11.389	1.00	0.00
ATOM	1036	C1'	THY	90	-16.470	-24.531	10.418	1.00	0.00
ATOM	1037	N1	THY	90	-15.315	-25.447	10.221	1.00	0.00
ATOM	1038	C6	THY	90	-14.753	-26.074	11.306	1.00	0.00
ATOM	1039	C5	THY	90	-13.638	-26.830	11.184	1.00	0.00
ATOM	1040	C7	THY	90	-13.129	-27.509	12.443	1.00	0.00
ATOM	1041	C4	THY	90	-12.974	-26.988	9.909	1.00	0.00
ATOM	1042	O4	THY	90	-11.939	-27.624	9.731	1.00	0.00
ATOM	1043	N3	THY	90	-13.605	-26.344	8.854	1.00	0.00
ATOM	1044	C2	THY	90	-14.785	-25.617	8.942	1.00	0.00
ATOM	1045	O2	THY	90	-15.321	-25.186	7.925	1.00	0.00
ATOM	1046	C3'	THY	90	-18.405	-24.063	11.735	1.00	0.00
ATOM	1047	C2'	THY	90	-17.662	-25.227	11.072	1.00	0.00
ATOM	1048	O3'	THY	90	-19.435	-23.521	10.924	1.00	0.00

293					294				
ATOM	1049	P	ADE	91	-20.833	-24.290	10.665	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.125	-25.149	11.834	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.829	-23.293	10.218	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.483	-25.244	9.418	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.358	-24.721	8.110	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.788	-25.778	7.161	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.477	-26.151	7.526	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.196	-27.350	6.841	1.00	0.00
ATOM	1057	N9	ADE	91	-17.016	-28.006	7.432	1.00	0.00
ATOM	1058	C8	ADE	91	-16.761	-28.241	8.756	1.00	0.00
ATOM	1059	N7	ADE	91	-15.597	-28.785	8.991	1.00	0.00
ATOM	1060	C5	ADE	91	-15.051	-28.935	7.717	1.00	0.00
ATOM	1061	C6	ADE	91	-13.822	-29.443	7.249	1.00	0.00
ATOM	1062	N6	ADE	91	-12.863	-29.878	8.069	1.00	0.00
ATOM	1063	N1	ADE	91	-13.614	-29.507	5.920	1.00	0.00
ATOM	1064	C2	ADE	91	-14.565	-29.071	5.097	1.00	0.00
ATOM	1065	N3	ADE	91	-15.740	-28.536	5.411	1.00	0.00
ATOM	1066	C4	ADE	91	-15.923	-28.494	6.757	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.571	-27.100	7.136	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.461	-28.159	7.097	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.424	-27.092	6.004	1.00	0.00
ATOM	1070	P	ADE	92	-22.353	-28.346	5.588	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.456	-27.844	4.739	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.656	-29.137	6.801	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.359	-29.205	4.658	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.838	-28.668	3.456	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.759	-29.592	2.887	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.695	-29.739	3.815	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.200	-31.055	3.721	1.00	0.00
ATOM	1078	N9	ADE	92	-17.427	-31.415	4.931	1.00	0.00
ATOM	1079	C8	ADE	92	-17.829	-31.357	6.242	1.00	0.00
ATOM	1080	N7	ADE	92	-16.922	-31.730	7.102	1.00	0.00
ATOM	1081	C5	ADE	92	-15.836	-32.058	6.301	1.00	0.00
ATOM	1082	C6	ADE	92	-14.544	-32.530	6.594	1.00	0.00
ATOM	1083	N6	ADE	92	-14.141	-32.753	7.847	1.00	0.00
ATOM	1084	N1	ADE	92	-13.687	-32.748	5.579	1.00	0.00
ATOM	1085	C2	ADE	92	-14.100	-32.518	4.334	1.00	0.00
ATOM	1086	N3	ADE	92	-15.293	-32.095	3.925	1.00	0.00
ATOM	1087	C4	ADE	92	-16.130	-31.871	4.974	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.278	-31.011	2.602	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.506	-31.841	3.630	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.965	-31.348	1.261	1.00	0.00
ATOM	1091	P	CYT	93	-20.484	-32.708	0.564	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.423	-33.393	1.480	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.897	-32.394	-0.821	1.00	0.00
ATOM	1094	O5'	CYT	93	-19.134	-33.577	0.501	1.00	0.00
ATOM	1095	C5'	CYT	93	-18.101	-33.259	-0.414	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.895	-34.160	-0.145	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.499	-34.000	1.198	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.884	-35.185	1.644	1.00	0.00

(149)

特開2003-135087

295

296

ATOM	1099	N1	CYT	93	-15.990	-35.255	3.122	1.00	0.00
ATOM	1100	C6	CYT	93	-17.164	-34.911	3.743	1.00	0.00
ATOM	1101	C5	CYT	93	-17.293	-34.943	5.088	1.00	0.00
ATOM	1102	C4	CYT	93	-16.138	-35.350	5.838	1.00	0.00
ATOM	1103	N4	CYT	93	-16.145	-35.321	7.171	1.00	0.00
ATOM	1104	N3	CYT	93	-15.002	-35.707	5.226	1.00	0.00
ATOM	1105	C2	CYT	93	-14.894	-35.677	3.868	1.00	0.00
ATOM	1106	O2	CYT	93	-13.845	-36.017	3.329	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.218	-35.653	-0.297	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.718	-36.291	0.997	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.540	-36.200	-1.408	1.00	0.00

END

HEADER 000000

REMARK	0.00527	1.65940	0.02522	0.01767	2.33456	1.59876
0.00000						

REMARK	2.32847	0.17908	0.41365	1.06867	0.66707	
--------	---------	---------	---------	---------	---------	--

REMARK	0.00879	0.00369	0.00421	0.01643	0.00778	
--------	---------	---------	---------	---------	---------	--

REMARK	110	108	2	0	0	0
0						

REMARK	1378	305	460	273	340	
--------	------	-----	-----	-----	-----	--

REMARK	0.03112	0.12157	0.02804	0.04027	0.10009	0.12157
--------	---------	---------	---------	---------	---------	---------

REMARK	4.76339	0.38764				
--------	---------	---------	--	--	--	--

REMARK	1	0	0	1	0	0
0						

ATOM	1	N	GLU	1	12.394	-30.442	27.767	1.00	0.00
ATOM	2	CA	GLU	1	11.131	-30.294	27.023	1.00	0.00
ATOM	3	CB	GLU	1	9.933	-30.771	27.865	1.00	0.00
ATOM	4	CG	GLU	1	8.584	-30.708	27.125	1.00	0.00
ATOM	5	CD	GLU	1	7.995	-29.300	27.053	1.00	0.00
ATOM	6	OE1	GLU	1	7.689	-28.859	25.924	1.00	0.00
ATOM	7	OE2	GLU	1	7.896	-28.674	28.129	1.00	0.00
ATOM	8	C	GLU	1	10.971	-28.857	26.524	1.00	0.00
ATOM	9	O	GLU	1	11.026	-28.623	25.318	1.00	0.00
ATOM	10	N	LYS	2	10.771	-27.916	27.454	1.00	0.00
ATOM	11	CA	LYS	2	10.561	-26.502	27.178	1.00	0.00
ATOM	12	CB	LYS	2	10.506	-25.707	28.491	1.00	0.00
ATOM	13	CG	LYS	2	9.310	-26.112	29.365	1.00	0.00
ATOM	14	CD	LYS	2	9.241	-25.323	30.680	1.00	0.00
ATOM	15	CE	LYS	2	8.952	-23.831	30.461	1.00	0.00
ATOM	16	NZ	LYS	2	8.742	-23.125	31.739	1.00	0.00
ATOM	17	C	LYS	2	11.631	-25.918	26.254	1.00	0.00
ATOM	18	O	LYS	2	12.822	-26.057	26.519	1.00	0.00
ATOM	19	N	HIS	3	11.176	-25.260	25.182	1.00	0.00
ATOM	20	CA	HIS	3	11.985	-24.600	24.165	1.00	0.00

297				298				
ATOM	21	CB	HIS	3	12.507	-25.613	23.133	1.00 0.00
ATOM	22	CG	HIS	3	13.628	-26.496	23.619	1.00 0.00
ATOM	23	ND1	HIS	3	13.416	-27.776	24.109	1.00 0.00
ATOM	24	CE1	HIS	3	14.613	-28.280	24.450	1.00 0.00
ATOM	25	NE2	HIS	3	15.614	-27.428	24.222	1.00 0.00
ATOM	26	CD2	HIS	3	14.986	-26.303	23.697	1.00 0.00
ATOM	27	C	HIS	3	11.118	-23.549	23.465	1.00 0.00
ATOM	28	O	HIS	3	11.483	-22.380	23.385	1.00 0.00
ATOM	29	N	ARG	4	9.963	-23.992	22.955	1.00 0.00
ATOM	30	CA	ARG	4	8.986	-23.184	22.238	1.00 0.00
ATOM	31	CB	ARG	4	7.831	-24.099	21.802	1.00 0.00
ATOM	32	CG	ARG	4	8.280	-25.119	20.743	1.00 0.00
ATOM	33	CD	ARG	4	7.455	-26.413	20.814	1.00 0.00
ATOM	34	NE	ARG	4	7.673	-27.147	22.073	1.00 0.00
ATOM	35	CZ	ARG	4	8.799	-27.799	22.411	1.00 0.00
ATOM	36	NH1	ARG	4	9.812	-27.907	21.542	1.00 0.00
ATOM	37	NH2	ARG	4	8.922	-28.334	23.629	1.00 0.00
ATOM	38	C	ARG	4	8.458	-22.041	23.110	1.00 0.00
ATOM	39	O	ARG	4	7.688	-22.280	24.037	1.00 0.00
ATOM	40	N	ALA	5	8.861	-20.802	22.799	1.00 0.00
ATOM	41	CA	ALA	5	8.447	-19.592	23.502	1.00 0.00
ATOM	42	CB	ALA	5	9.535	-19.199	24.507	1.00 0.00
ATOM	43	C	ALA	5	8.166	-18.480	22.486	1.00 0.00
ATOM	44	O	ALA	5	8.525	-17.324	22.695	1.00 0.00
ATOM	45	N	ARG	6	7.523	-18.853	21.375	1.00 0.00
ATOM	46	CA	ARG	6	7.161	-17.996	20.253	1.00 0.00
ATOM	47	CB	ARG	6	8.445	-17.738	19.438	1.00 0.00
ATOM	48	CG	ARG	6	8.317	-16.826	18.210	1.00 0.00
ATOM	49	CD	ARG	6	8.060	-15.353	18.548	1.00 0.00
ATOM	50	NE	ARG	6	7.885	-14.592	17.303	1.00 0.00
ATOM	51	CZ	ARG	6	7.931	-13.258	17.164	1.00 0.00
ATOM	52	NH1	ARG	6	8.005	-12.734	15.936	1.00 0.00
ATOM	53	NH2	ARG	6	7.922	-12.447	18.230	1.00 0.00
ATOM	54	C	ARG	6	6.102	-18.761	19.449	1.00 0.00
ATOM	55	O	ARG	6	5.939	-19.966	19.667	1.00 0.00
ATOM	56	N	LYS	7	5.379	-18.094	18.543	1.00 0.00
ATOM	57	CA	LYS	7	4.356	-18.702	17.699	1.00 0.00
ATOM	58	CB	LYS	7	2.947	-18.380	18.229	1.00 0.00
ATOM	59	CG	LYS	7	2.703	-18.798	19.685	1.00 0.00
ATOM	60	CD	LYS	7	2.642	-20.326	19.841	1.00 0.00
ATOM	61	CE	LYS	7	2.822	-20.776	21.295	1.00 0.00
ATOM	62	NZ	LYS	7	4.163	-20.431	21.807	1.00 0.00
ATOM	63	C	LYS	7	4.538	-18.210	16.260	1.00 0.00
ATOM	64	O	LYS	7	5.426	-17.409	15.975	1.00 0.00
ATOM	65	N	ARG	8	3.692	-18.710	15.350	1.00 0.00
ATOM	66	CA	ARG	8	3.708	-18.382	13.931	1.00 0.00
ATOM	67	CB	ARG	8	3.288	-16.923	13.661	1.00 0.00
ATOM	68	CG	ARG	8	1.761	-16.752	13.548	1.00 0.00
ATOM	69	CD	ARG	8	1.021	-17.281	14.780	1.00 0.00
ATOM	70	NE	ARG	8	-0.433	-17.070	14.698	1.00 0.00

299					300				
ATOM	71	CZ	ARG	8	-1.317	-17.572	15.580	1.00	0.00
ATOM	72	NH1	ARG	8	-2.621	-17.318	15.443	1.00	0.00
ATOM	73	NH2	ARG	8	-0.899	-18.324	16.608	1.00	0.00
ATOM	74	C	ARG	8	5.066	-18.769	13.337	1.00	0.00
ATOM	75	O	ARG	8	5.909	-17.918	13.059	1.00	0.00
ATOM	76	N	GLN	9	5.268	-20.078	13.154	1.00	0.00
ATOM	77	CA	GLN	9	6.500	-20.643	12.631	1.00	0.00
ATOM	78	CB	GLN	9	6.552	-22.139	12.964	1.00	0.00
ATOM	79	CG	GLN	9	6.581	-22.385	14.479	1.00	0.00
ATOM	80	CD	GLN	9	6.269	-23.842	14.790	1.00	0.00
ATOM	81	OE1	GLN	9	7.159	-24.613	15.138	1.00	0.00
ATOM	82	NE2	GLN	9	5.001	-24.223	14.650	1.00	0.00
ATOM	83	C	GLN	9	6.602	-20.417	11.123	1.00	0.00
ATOM	84	O	GLN	9	6.199	-21.276	10.334	1.00	0.00
ATOM	85	N	ALA	10	7.161	-19.258	10.751	1.00	0.00
ATOM	86	CA	ALA	10	7.399	-18.830	9.378	1.00	0.00
ATOM	87	CB	ALA	10	8.300	-17.593	9.383	1.00	0.00
ATOM	88	C	ALA	10	8.045	-19.965	8.587	1.00	0.00
ATOM	89	O	ALA	10	9.052	-20.524	9.022	1.00	0.00
ATOM	90	N	TRP	11	7.464	-20.316	7.438	1.00	0.00
ATOM	91	CA	TRP	11	7.972	-21.395	6.611	1.00	0.00
ATOM	92	CB	TRP	11	6.993	-21.691	5.475	1.00	0.00
ATOM	93	CG	TRP	11	5.700	-22.375	5.817	1.00	0.00
ATOM	94	CD1	TRP	11	4.820	-22.029	6.784	1.00	0.00
ATOM	95	NE1	TRP	11	3.742	-22.890	6.782	1.00	0.00
ATOM	96	CE2	TRP	11	3.883	-23.853	5.805	1.00	0.00
ATOM	97	CZ2	TRP	11	3.088	-24.935	5.405	1.00	0.00
ATOM	98	CH2	TRP	11	3.534	-25.754	4.362	1.00	0.00
ATOM	99	CZ3	TRP	11	4.753	-25.486	3.722	1.00	0.00
ATOM	100	CE3	TRP	11	5.534	-24.392	4.124	1.00	0.00
ATOM	101	CD2	TRP	11	5.127	-23.550	5.178	1.00	0.00
ATOM	102	C	TRP	11	9.347	-21.042	6.038	1.00	0.00
ATOM	103	O	TRP	11	9.623	-19.886	5.722	1.00	0.00
ATOM	104	N	LEU	12	10.199	-22.063	5.900	1.00	0.00
ATOM	105	CA	LEU	12	11.544	-21.960	5.350	1.00	0.00
ATOM	106	CB	LEU	12	12.526	-22.799	6.182	1.00	0.00
ATOM	107	CG	LEU	12	12.631	-22.349	7.652	1.00	0.00
ATOM	108	CD1	LEU	12	11.607	-23.051	8.559	1.00	0.00
ATOM	109	CD2	LEU	12	14.035	-22.666	8.180	1.00	0.00
ATOM	110	C	LEU	12	11.494	-22.474	3.911	1.00	0.00
ATOM	111	O	LEU	12	10.517	-23.127	3.535	1.00	0.00
ATOM	112	N	TRP	13	12.526	-22.211	3.089	1.00	0.00
ATOM	113	CA	TRP	13	12.464	-22.720	1.725	1.00	0.00
ATOM	114	CB	TRP	13	13.510	-22.202	0.735	1.00	0.00
ATOM	115	CG	TRP	13	14.922	-22.678	0.881	1.00	0.00
ATOM	116	CD1	TRP	13	15.900	-21.868	1.298	1.00	0.00
ATOM	117	NE1	TRP	13	17.105	-22.532	1.354	1.00	0.00
ATOM	118	CE2	TRP	13	16.954	-23.844	0.955	1.00	0.00
ATOM	119	CZ2	TRP	13	17.856	-24.912	0.836	1.00	0.00
ATOM	120	CH2	TRP	13	17.389	-26.157	0.389	1.00	0.00

301				302				
ATOM	121	CZ3 TRP	13	16.032	-26.315	0.063	1.00	0.00
ATOM	122	CE3 TRP	13	15.139	-25.237	0.185	1.00	0.00
ATOM	123	CD2 TRP	13	15.567	-23.970	0.638	1.00	0.00
ATOM	124	C TRP	13	12.413	-24.231	1.706	1.00	0.00
ATOM	125	O TRP	13	11.826	-24.755	0.782	1.00	0.00
ATOM	126	N GLU	14	12.979	-24.971	2.665	1.00	0.00
ATOM	127	CA GLU	14	12.839	-26.416	2.562	1.00	0.00
ATOM	128	CB GLU	14	13.530	-27.163	3.703	1.00	0.00
ATOM	129	CG GLU	14	15.055	-27.134	3.589	1.00	0.00
ATOM	130	CD GLU	14	15.683	-28.133	4.555	1.00	0.00
ATOM	131	OE1 GLU	14	15.349	-29.333	4.419	1.00	0.00
ATOM	132	OE2 GLU	14	16.467	-27.685	5.415	1.00	0.00
ATOM	133	C GLU	14	11.359	-26.777	2.494	1.00	0.00
ATOM	134	O GLU	14	10.964	-27.549	1.628	1.00	0.00
ATOM	135	N GLU	15	10.549	-26.188	3.372	1.00	0.00
ATOM	136	CA GLU	15	9.121	-26.416	3.383	1.00	0.00
ATOM	137	CB GLU	15	8.510	-25.778	4.634	1.00	0.00
ATOM	138	CG GLU	15	9.201	-26.236	5.922	1.00	0.00
ATOM	139	CD GLU	15	8.293	-25.996	7.120	1.00	0.00
ATOM	140	OE1 GLU	15	8.254	-24.848	7.614	1.00	0.00
ATOM	141	OE2 GLU	15	7.595	-26.961	7.500	1.00	0.00
ATOM	142	C GLU	15	8.476	-25.905	2.087	1.00	0.00
ATOM	143	O GLU	15	7.806	-26.669	1.398	1.00	0.00
ATOM	144	N ASP	16	8.664	-24.624	1.742	1.00	0.00
ATOM	145	CA ASP	16	8.067	-24.030	0.543	1.00	0.00
ATOM	146	CB ASP	16	8.402	-22.535	0.448	1.00	0.00
ATOM	147	CG ASP	16	7.816	-21.706	1.580	1.00	0.00
ATOM	148	OD1 ASP	16	6.768	-22.112	2.120	1.00	0.00
ATOM	149	OD2 ASP	16	8.390	-20.632	1.857	1.00	0.00
ATOM	150	C ASP	16	8.511	-24.716	-0.749	1.00	0.00
ATOM	151	O ASP	16	7.681	-25.165	-1.537	1.00	0.00
ATOM	152	N LYS	17	9.827	-24.777	-0.969	1.00	0.00
ATOM	153	CA LYS	17	10.474	-25.369	-2.126	1.00	0.00
ATOM	154	CB LYS	17	12.014	-25.295	-1.955	1.00	0.00
ATOM	155	CG LYS	17	12.783	-25.614	-3.244	1.00	0.00
ATOM	156	CD LYS	17	12.898	-24.425	-4.214	1.00	0.00
ATOM	157	CE LYS	17	13.568	-23.174	-3.622	1.00	0.00
ATOM	158	NZ LYS	17	14.829	-23.482	-2.917	1.00	0.00
ATOM	159	C LYS	17	9.942	-26.799	-2.291	1.00	0.00
ATOM	160	O LYS	17	9.502	-27.176	-3.377	1.00	0.00
ATOM	161	N ASN	18	9.957	-27.586	-1.205	1.00	0.00
ATOM	162	CA ASN	18	9.459	-28.954	-1.214	1.00	0.00
ATOM	163	CB ASN	18	9.715	-29.611	0.141	1.00	0.00
ATOM	164	CG ASN	18	9.151	-31.018	0.180	1.00	0.00
ATOM	165	OD1 ASN	18	9.596	-31.880	-0.568	1.00	0.00
ATOM	166	ND2 ASN	18	8.161	-31.239	1.044	1.00	0.00
ATOM	167	C ASN	18	7.967	-29.022	-1.547	1.00	0.00
ATOM	168	O ASN	18	7.567	-29.851	-2.358	1.00	0.00
ATOM	169	N LEU	19	7.143	-28.171	-0.926	1.00	0.00
ATOM	170	CA LEU	19	5.703	-28.143	-1.147	1.00	0.00

303

304

ATOM	171	CB	LEU	19	5.063	-27.050	-0.277	1.00	0.00
ATOM	172	CG	LEU	19	3.540	-26.958	-0.455	1.00	0.00
ATOM	173	CD1	LEU	19	2.874	-28.285	-0.078	1.00	0.00
ATOM	174	CD2	LEU	19	2.987	-25.819	0.407	1.00	0.00
ATOM	175	C	LEU	19	5.394	-27.915	-2.624	1.00	0.00
ATOM	176	O	LEU	19	4.679	-28.703	-3.238	1.00	0.00
ATOM	177	N	ARG	20	5.944	-26.835	-3.184	1.00	0.00
ATOM	178	CA	ARG	20	5.780	-26.448	-4.578	1.00	0.00
ATOM	179	CB	ARG	20	6.627	-25.191	-4.833	1.00	0.00
ATOM	180	CG	ARG	20	6.058	-24.000	-4.041	1.00	0.00
ATOM	181	CD	ARG	20	7.078	-22.883	-3.808	1.00	0.00
ATOM	182	NE	ARG	20	7.462	-22.210	-5.055	1.00	0.00
ATOM	183	CZ	ARG	20	8.119	-21.039	-5.110	1.00	0.00
ATOM	184	NH1	ARG	20	8.488	-20.412	-3.984	1.00	0.00
ATOM	185	NH2	ARG	20	8.411	-20.498	-6.299	1.00	0.00
ATOM	186	C	ARG	20	6.178	-27.629	-5.470	1.00	0.00
ATOM	187	O	ARG	20	5.421	-28.019	-6.361	1.00	0.00
ATOM	188	N	SER	21	7.351	-28.222	-5.210	1.00	0.00
ATOM	189	CA	SER	21	7.828	-29.383	-5.947	1.00	0.00
ATOM	190	CB	SER	21	9.195	-29.821	-5.413	1.00	0.00
ATOM	191	OG	SER	21	10.158	-28.841	-5.742	1.00	0.00
ATOM	192	C	SER	21	6.810	-30.524	-5.877	1.00	0.00
ATOM	193	O	SER	21	6.505	-31.125	-6.906	1.00	0.00
ATOM	194	N	GLY	22	6.294	-30.808	-4.678	1.00	0.00
ATOM	195	CA	GLY	22	5.313	-31.845	-4.408	1.00	0.00
ATOM	196	C	GLY	22	4.048	-31.645	-5.231	1.00	0.00
ATOM	197	O	GLY	22	3.593	-32.576	-5.894	1.00	0.00
ATOM	198	N	VAL	23	3.496	-30.426	-5.206	1.00	0.00
ATOM	199	CA	VAL	23	2.312	-30.084	-5.981	1.00	0.00
ATOM	200	CB	VAL	23	1.883	-28.630	-5.717	1.00	0.00
ATOM	201	CG1	VAL	23	0.755	-28.199	-6.666	1.00	0.00
ATOM	202	CG2	VAL	23	1.369	-28.483	-4.279	1.00	0.00
ATOM	203	C	VAL	23	2.615	-30.357	-7.455	1.00	0.00
ATOM	204	O	VAL	23	1.768	-30.887	-8.163	1.00	0.00
ATOM	205	N	ARG	24	3.825	-30.027	-7.923	1.00	0.00
ATOM	206	CA	ARG	24	4.196	-30.296	-9.306	1.00	0.00
ATOM	207	CB	ARG	24	5.448	-29.492	-9.709	1.00	0.00
ATOM	208	CG	ARG	24	5.140	-28.402	-10.752	1.00	0.00
ATOM	209	CD	ARG	24	5.094	-28.940	-12.191	1.00	0.00
ATOM	210	NE	ARG	24	4.145	-30.050	-12.349	1.00	0.00
ATOM	211	CZ	ARG	24	2.809	-29.959	-12.428	1.00	0.00
ATOM	212	NH1	ARG	24	2.184	-28.798	-12.645	1.00	0.00
ATOM	213	NH2	ARG	24	2.077	-31.054	-12.232	1.00	0.00
ATOM	214	C	ARG	24	4.352	-31.803	-9.583	1.00	0.00
ATOM	215	O	ARG	24	4.118	-32.248	-10.705	1.00	0.00
ATOM	216	N	LYS	25	4.753	-32.596	-8.583	1.00	0.00
ATOM	217	CA	LYS	25	4.942	-34.038	-8.731	1.00	0.00
ATOM	218	CB	LYS	25	5.828	-34.601	-7.600	1.00	0.00
ATOM	219	CG	LYS	25	7.288	-34.905	-7.982	1.00	0.00
ATOM	220	CD	LYS	25	8.224	-33.693	-7.902	1.00	0.00

305				306					
ATOM	221	CE	LYS	25	8.164	-32.806	-9.152	1.00	0.00
ATOM	222	NZ	LYS	25	8.553	-31.420	-8.845	1.00	0.00
ATOM	223	C	LYS	25	3.621	-34.817	-8.771	1.00	0.00
ATOM	224	O	LYS	25	3.509	-35.750	-9.564	1.00	0.00
ATOM	225	N	TYR	26	2.659	-34.486	-7.899	1.00	0.00
ATOM	226	CA	TYR	26	1.405	-35.235	-7.777	1.00	0.00
ATOM	227	CB	TYR	26	1.327	-35.802	-6.351	1.00	0.00
ATOM	228	CG	TYR	26	2.643	-36.366	-5.841	1.00	0.00
ATOM	229	CD1	TYR	26	3.175	-37.544	-6.396	1.00	0.00
ATOM	230	CE1	TYR	26	4.400	-38.052	-5.928	1.00	0.00
ATOM	231	CZ	TYR	26	5.096	-37.384	-4.904	1.00	0.00
ATOM	232	OH	TYR	26	6.287	-37.872	-4.449	1.00	0.00
ATOM	233	CE2	TYR	26	4.566	-36.209	-4.349	1.00	0.00
ATOM	234	CD2	TYR	26	3.342	-35.701	-4.817	1.00	0.00
ATOM	235	C	TYR	26	0.127	-34.456	-8.099	1.00	0.00
ATOM	236	O	TYR	26	-0.937	-35.068	-8.178	1.00	0.00
ATOM	237	N	GLY	27	0.204	-33.134	-8.263	1.00	0.00
ATOM	238	CA	GLY	27	-0.953	-32.288	-8.532	1.00	0.00
ATOM	239	C	GLY	27	-1.547	-31.801	-7.209	1.00	0.00
ATOM	240	O	GLY	27	-1.244	-32.351	-6.147	1.00	0.00
ATOM	241	N	GLU	28	-2.398	-30.767	-7.252	1.00	0.00
ATOM	242	CA	GLU	28	-3.018	-30.237	-6.043	1.00	0.00
ATOM	243	CB	GLU	28	-3.685	-28.876	-6.324	1.00	0.00
ATOM	244	CG	GLU	28	-3.920	-28.131	-5.003	1.00	0.00
ATOM	245	CD	GLU	28	-4.456	-26.709	-5.140	1.00	0.00
ATOM	246	OE1	GLU	28	-4.024	-26.002	-6.078	1.00	0.00
ATOM	247	OE2	GLU	28	-5.237	-26.316	-4.243	1.00	0.00
ATOM	248	C	GLU	28	-3.991	-31.276	-5.465	1.00	0.00
ATOM	249	O	GLU	28	-4.595	-32.044	-6.212	1.00	0.00
ATOM	250	N	GLY	29	-4.134	-31.308	-4.136	1.00	0.00
ATOM	251	CA	GLY	29	-5.016	-32.241	-3.446	1.00	0.00
ATOM	252	C	GLY	29	-4.371	-33.606	-3.239	1.00	0.00
ATOM	253	O	GLY	29	-5.025	-34.636	-3.387	1.00	0.00
ATOM	254	N	ASN	30	-3.083	-33.604	-2.876	1.00	0.00
ATOM	255	CA	ASN	30	-2.292	-34.798	-2.594	1.00	0.00
ATOM	256	CB	ASN	30	-1.512	-35.230	-3.846	1.00	0.00
ATOM	257	CG	ASN	30	-2.422	-35.693	-4.980	1.00	0.00
ATOM	258	OD1	ASN	30	-2.775	-36.867	-5.051	1.00	0.00
ATOM	259	ND2	ASN	30	-2.781	-34.781	-5.880	1.00	0.00
ATOM	260	C	ASN	30	-1.341	-34.470	-1.442	1.00	0.00
ATOM	261	O	ASN	30	-0.199	-34.925	-1.419	1.00	0.00
ATOM	262	N	TRP	31	-1.808	-33.664	-0.484	1.00	0.00
ATOM	263	CA	TRP	31	-1.021	-33.228	0.662	1.00	0.00
ATOM	264	CB	TRP	31	-1.788	-32.182	1.477	1.00	0.00
ATOM	265	CG	TRP	31	-2.558	-31.239	0.611	1.00	0.00
ATOM	266	CD1	TRP	31	-3.899	-31.225	0.431	1.00	0.00
ATOM	267	NE1	TRP	31	-4.241	-30.232	-0.462	1.00	0.00
ATOM	268	CE2	TRP	31	-3.119	-29.552	-0.897	1.00	0.00
ATOM	269	CZ2	TRP	31	-2.926	-28.485	-1.785	1.00	0.00
ATOM	270	CH2	TRP	31	-1.623	-28.025	-2.026	1.00	0.00

307				308			
ATOM	271	CZ3 TRP	31	-0.533	-28.624	-1.382	1.00 0.00
ATOM	272	CE3 TRP	31	-0.734	-29.691	-0.492	1.00 0.00
ATOM	273	CD2 TRP	31	-2.030	-30.179	-0.227	1.00 0.00
ATOM	274	C TRP	31	-0.554	-34.427	1.477	1.00 0.00
ATOM	275	O TRP	31	0.575	-34.429	1.962	1.00 0.00
ATOM	276	N SER	32	-1.405	-35.452	1.587	1.00 0.00
ATOM	277	CA SER	32	-1.090	-36.694	2.275	1.00 0.00
ATOM	278	CB SER	32	-2.276	-37.657	2.156	1.00 0.00
ATOM	279	OG SER	32	-2.687	-37.787	0.805	1.00 0.00
ATOM	280	C SER	32	0.173	-37.299	1.655	1.00 0.00
ATOM	281	O SER	32	1.116	-37.647	2.361	1.00 0.00
ATOM	282	N LYS	33	0.194	-37.410	0.323	1.00 0.00
ATOM	283	CA LYS	33	1.329	-37.952	-0.402	1.00 0.00
ATOM	284	CB LYS	33	1.018	-38.076	-1.901	1.00 0.00
ATOM	285	CG LYS	33	-0.219	-38.924	-2.229	1.00 0.00
ATOM	286	CD LYS	33	-0.187	-40.355	-1.664	1.00 0.00
ATOM	287	CE LYS	33	1.118	-41.121	-1.928	1.00 0.00
ATOM	288	NZ LYS	33	1.525	-41.088	-3.345	1.00 0.00
ATOM	289	C LYS	33	2.566	-37.082	-0.187	1.00 0.00
ATOM	290	O LYS	33	3.617	-37.599	0.178	1.00 0.00
ATOM	291	N ILE	34	2.442	-35.771	-0.415	1.00 0.00
ATOM	292	CA ILE	34	3.535	-34.817	-0.267	1.00 0.00
ATOM	293	CB ILE	34	3.024	-33.389	-0.566	1.00 0.00
ATOM	294	CG2 ILE	34	4.092	-32.316	-0.313	1.00 0.00
ATOM	295	CG1 ILE	34	2.589	-33.286	-2.041	1.00 0.00
ATOM	296	CD1 ILE	34	1.853	-31.986	-2.373	1.00 0.00
ATOM	297	C ILE	34	4.193	-34.972	1.113	1.00 0.00
ATOM	298	O ILE	34	5.401	-35.193	1.192	1.00 0.00
ATOM	299	N LEU	35	3.419	-34.872	2.200	1.00 0.00
ATOM	300	CA LEU	35	3.955	-35.004	3.551	1.00 0.00
ATOM	301	CB LEU	35	2.980	-34.443	4.603	1.00 0.00
ATOM	302	CG LEU	35	1.726	-35.290	4.889	1.00 0.00
ATOM	303	CD1 LEU	35	1.960	-36.325	6.000	1.00 0.00
ATOM	304	CD2 LEU	35	0.571	-34.380	5.325	1.00 0.00
ATOM	305	C LEU	35	4.459	-36.416	3.855	1.00 0.00
ATOM	306	O LEU	35	5.382	-36.561	4.650	1.00 0.00
ATOM	307	N LEU	36	3.880	-37.456	3.237	1.00 0.00
ATOM	308	CA LEU	36	4.308	-38.832	3.464	1.00 0.00
ATOM	309	CB LEU	36	3.266	-39.800	2.882	1.00 0.00
ATOM	310	CG LEU	36	3.652	-41.286	2.967	1.00 0.00
ATOM	311	CD1 LEU	36	3.810	-41.754	4.418	1.00 0.00
ATOM	312	CD2 LEU	36	2.567	-42.120	2.277	1.00 0.00
ATOM	313	C LEU	36	5.693	-39.061	2.854	1.00 0.00
ATOM	314	O LEU	36	6.580	-39.605	3.507	1.00 0.00
ATOM	315	N HIS	37	5.871	-38.651	1.594	1.00 0.00
ATOM	316	CA HIS	37	7.119	-38.805	0.863	1.00 0.00
ATOM	317	CB HIS	37	6.888	-38.487	-0.622	1.00 0.00
ATOM	318	CG HIS	37	5.978	-39.459	-1.330	1.00 0.00
ATOM	319	ND1 HIS	37	6.236	-40.820	-1.383	1.00 0.00
ATOM	320	CE1 HIS	37	5.242	-41.390	-2.086	1.00 0.00

309				310				
ATOM	321	NE2 HIS	37	4.332	-40.507	-2.509	1.00	0.00
ATOM	322	CD2 HIS	37	4.805	-39.289	-2.025	1.00	0.00
ATOM	323	C HIS	37	8.221	-37.904	1.417	1.00	0.00
ATOM	324	O HIS	37	9.370	-38.331	1.510	1.00	0.00
ATOM	325	N TYR	38	7.879	-36.655	1.752	1.00	0.00
ATOM	326	CA TYR	38	8.819	-35.655	2.238	1.00	0.00
ATOM	327	CB TYR	38	8.614	-34.391	1.398	1.00	0.00
ATOM	328	CG TYR	38	8.493	-34.614	-0.103	1.00	0.00
ATOM	329	CD1 TYR	38	7.452	-33.993	-0.819	1.00	0.00
ATOM	330	CE1 TYR	38	7.328	-34.184	-2.203	1.00	0.00
ATOM	331	CZ TYR	38	8.242	-35.002	-2.884	1.00	0.00
ATOM	332	OH TYR	38	8.114	-35.183	-4.230	1.00	0.00
ATOM	333	CE2 TYR	38	9.285	-35.627	-2.178	1.00	0.00
ATOM	334	CD2 TYR	38	9.411	-35.433	-0.791	1.00	0.00
ATOM	335	C TYR	38	8.658	-35.417	3.744	1.00	0.00
ATOM	336	O TYR	38	8.363	-36.352	4.484	1.00	0.00
ATOM	337	N LYS	39	8.861	-34.173	4.207	1.00	0.00
ATOM	338	CA LYS	39	8.743	-33.796	5.610	1.00	0.00
ATOM	339	CB LYS	39	10.007	-34.195	6.398	1.00	0.00
ATOM	340	CG LYS	39	11.138	-33.151	6.467	1.00	0.00
ATOM	341	CD LYS	39	11.776	-32.796	5.115	1.00	0.00
ATOM	342	CE LYS	39	12.868	-31.736	5.333	1.00	0.00
ATOM	343	NZ LYS	39	13.512	-31.315	4.075	1.00	0.00
ATOM	344	C LYS	39	8.424	-32.305	5.743	1.00	0.00
ATOM	345	O LYS	39	8.651	-31.540	4.804	1.00	0.00
ATOM	346	N PHE	40	7.913	-31.906	6.915	1.00	0.00
ATOM	347	CA PHE	40	7.557	-30.536	7.263	1.00	0.00
ATOM	348	CB PHE	40	6.126	-30.219	6.814	1.00	0.00
ATOM	349	CG PHE	40	5.914	-30.228	5.316	1.00	0.00
ATOM	350	CD1 PHE	40	5.357	-31.351	4.680	1.00	0.00
ATOM	351	CE1 PHE	40	5.165	-31.346	3.290	1.00	0.00
ATOM	352	CZ PHE	40	5.530	-30.220	2.529	1.00	0.00
ATOM	353	CE2 PHE	40	6.087	-29.101	3.167	1.00	0.00
ATOM	354	CD2 PHE	40	6.280	-29.104	4.558	1.00	0.00
ATOM	355	C PHE	40	7.654	-30.368	8.779	1.00	0.00
ATOM	356	O PHE	40	7.737	-31.357	9.508	1.00	0.00
ATOM	357	N ASN	41	7.627	-29.118	9.253	1.00	0.00
ATOM	358	CA ASN	41	7.690	-28.775	10.669	1.00	0.00
ATOM	359	CB ASN	41	8.113	-27.304	10.807	1.00	0.00
ATOM	360	CG ASN	41	8.213	-26.859	12.266	1.00	0.00
ATOM	361	OD1 ASN	41	8.488	-27.665	13.153	1.00	0.00
ATOM	362	ND2 ASN	41	7.983	-25.573	12.527	1.00	0.00
ATOM	363	C ASN	41	6.336	-29.049	11.337	1.00	0.00
ATOM	364	O ASN	41	5.637	-28.117	11.729	1.00	0.00
ATOM	365	N ASN	42	5.973	-30.334	11.455	1.00	0.00
ATOM	366	CA ASN	42	4.730	-30.816	12.053	1.00	0.00
ATOM	367	CB ASN	42	4.826	-30.754	13.585	1.00	0.00
ATOM	368	CG ASN	42	3.593	-31.351	14.267	1.00	0.00
ATOM	369	OD1 ASN	42	2.942	-32.240	13.724	1.00	0.00
ATOM	370	ND2 ASN	42	3.269	-30.871	15.467	1.00	0.00

311				312				
ATOM	371	C	ASN	42	3.527	-30.040	11.509	1.00 0.00
ATOM	372	O	ASN	42	2.859	-29.316	12.246	1.00 0.00
ATOM	373	N	ARG	43	3.271	-30.186	10.204	1.00 0.00
ATOM	374	CA	ARG	43	2.194	-29.500	9.506	1.00 0.00
ATOM	375	CB	ARG	43	2.786	-28.687	8.355	1.00 0.00
ATOM	376	CG	ARG	43	3.862	-27.732	8.885	1.00 0.00
ATOM	377	CD	ARG	43	4.122	-26.650	7.844	1.00 0.00
ATOM	378	NE	ARG	43	5.230	-25.766	8.226	1.00 0.00
ATOM	379	CZ	ARG	43	5.135	-24.688	9.022	1.00 0.00
ATOM	380	NH1	ARG	43	6.189	-23.876	9.173	1.00 0.00
ATOM	381	NH2	ARG	43	3.977	-24.437	9.645	1.00 0.00
ATOM	382	C	ARG	43	1.135	-30.481	9.009	1.00 0.00
ATOM	383	O	ARG	43	1.423	-31.653	8.773	1.00 0.00
ATOM	384	N	THR	44	-0.094	-29.978	8.864	1.00 0.00
ATOM	385	CA	THR	44	-1.262	-30.724	8.429	1.00 0.00
ATOM	386	CB	THR	44	-2.459	-30.296	9.294	1.00 0.00
ATOM	387	CG2	THR	44	-2.179	-30.483	10.790	1.00 0.00
ATOM	388	OG1	THR	44	-2.771	-28.937	9.034	1.00 0.00
ATOM	389	C	THR	44	-1.591	-30.431	6.966	1.00 0.00
ATOM	390	O	THR	44	-1.038	-29.515	6.359	1.00 0.00
ATOM	391	N	SER	45	-2.540	-31.195	6.419	1.00 0.00
ATOM	392	CA	SER	45	-3.045	-31.016	5.066	1.00 0.00
ATOM	393	CB	SER	45	-4.087	-32.107	4.801	1.00 0.00
ATOM	394	OG	SER	45	-4.750	-31.899	3.576	1.00 0.00
ATOM	395	C	SER	45	-3.609	-29.594	4.930	1.00 0.00
ATOM	396	O	SER	45	-3.426	-28.945	3.899	1.00 0.00
ATOM	397	N	VAL	46	-4.271	-29.101	5.988	1.00 0.00
ATOM	398	CA	VAL	46	-4.824	-27.754	6.028	1.00 0.00
ATOM	399	CB	VAL	46	-5.643	-27.514	7.310	1.00 0.00
ATOM	400	CG1	VAL	46	-6.356	-26.159	7.222	1.00 0.00
ATOM	401	CG2	VAL	46	-6.702	-28.599	7.534	1.00 0.00
ATOM	402	C	VAL	46	-3.681	-26.744	5.899	1.00 0.00
ATOM	403	O	VAL	46	-3.739	-25.882	5.028	1.00 0.00
ATOM	404	N	MET	47	-2.646	-26.855	6.748	1.00 0.00
ATOM	405	CA	MET	47	-1.483	-25.967	6.709	1.00 0.00
ATOM	406	CB	MET	47	-0.409	-26.449	7.697	1.00 0.00
ATOM	407	CG	MET	47	-0.744	-26.240	9.173	1.00 0.00
ATOM	408	SD	MET	47	-0.580	-24.533	9.750	1.00 0.00
ATOM	409	CE	MET	47	-0.732	-24.829	11.527	1.00 0.00
ATOM	410	C	MET	47	-0.872	-25.943	5.306	1.00 0.00
ATOM	411	O	MET	47	-0.587	-24.878	4.760	1.00 0.00
ATOM	412	N	LEU	48	-0.664	-27.133	4.731	1.00 0.00
ATOM	413	CA	LEU	48	-0.085	-27.314	3.410	1.00 0.00
ATOM	414	CB	LEU	48	0.043	-28.817	3.109	1.00 0.00
ATOM	415	CG	LEU	48	1.157	-29.442	3.968	1.00 0.00
ATOM	416	CD1	LEU	48	0.959	-30.942	4.200	1.00 0.00
ATOM	417	CD2	LEU	48	2.515	-29.268	3.291	1.00 0.00
ATOM	418	C	LEU	48	-0.884	-26.552	2.355	1.00 0.00
ATOM	419	O	LEU	48	-0.318	-25.745	1.616	1.00 0.00
ATOM	420	N	LYS	49	-2.199	-26.785	2.289	1.00 0.00

313				314				
ATOM	421	CA	LYS	49	-3.023	-26.076	1.326	1.00 0.00
ATOM	422	CB	LYS	49	-4.471	-26.557	1.353	1.00 0.00
ATOM	423	CG	LYS	49	-5.256	-25.730	0.316	1.00 0.00
ATOM	424	CD	LYS	49	-6.619	-26.336	0.020	1.00 0.00
ATOM	425	CE	LYS	49	-6.460	-27.600	-0.821	1.00 0.00
ATOM	426	NZ	LYS	49	-6.760	-27.410	-2.254	1.00 0.00
ATOM	427	C	LYS	49	-2.984	-24.575	1.577	1.00 0.00
ATOM	428	O	LYS	49	-2.811	-23.814	0.634	1.00 0.00
ATOM	429	N	ASP	50	-3.165	-24.150	2.829	1.00 0.00
ATOM	430	CA	ASP	50	-3.167	-22.743	3.209	1.00 0.00
ATOM	431	CB	ASP	50	-3.304	-22.609	4.730	1.00 0.00
ATOM	432	CG	ASP	50	-3.457	-21.159	5.174	1.00 0.00
ATOM	433	OD1	ASP	50	-2.994	-20.864	6.297	1.00 0.00
ATOM	434	OD2	ASP	50	-4.063	-20.377	4.410	1.00 0.00
ATOM	435	C	ASP	50	-1.919	-22.040	2.670	1.00 0.00
ATOM	436	O	ASP	50	-2.022	-21.007	2.010	1.00 0.00
ATOM	437	N	ARG	51	-0.737	-22.618	2.916	1.00 0.00
ATOM	438	CA	ARG	51	0.508	-22.059	2.410	1.00 0.00
ATOM	439	CB	ARG	51	1.707	-22.892	2.878	1.00 0.00
ATOM	440	CG	ARG	51	3.052	-22.285	2.443	1.00 0.00
ATOM	441	CD	ARG	51	3.358	-20.981	3.189	1.00 0.00
ATOM	442	NE	ARG	51	4.721	-20.500	2.912	1.00 0.00
ATOM	443	CZ	ARG	51	5.126	-19.218	2.927	1.00 0.00
ATOM	444	NH1	ARG	51	6.382	-18.905	2.592	1.00 0.00
ATOM	445	NH2	ARG	51	4.284	-18.239	3.273	1.00 0.00
ATOM	446	C	ARG	51	0.449	-21.975	0.884	1.00 0.00
ATOM	447	O	ARG	51	0.800	-20.946	0.313	1.00 0.00
ATOM	448	N	TRP	52	-0.002	-23.046	0.216	1.00 0.00
ATOM	449	CA	TRP	52	-0.113	-23.055	-1.235	1.00 0.00
ATOM	450	CB	TRP	52	-0.500	-24.446	-1.738	1.00 0.00
ATOM	451	CG	TRP	52	-0.694	-24.558	-3.220	1.00 0.00
ATOM	452	CD1	TRP	52	-1.828	-24.969	-3.824	1.00 0.00
ATOM	453	NE1	TRP	52	-1.665	-24.966	-5.190	1.00 0.00
ATOM	454	CE2	TRP	52	-0.403	-24.536	-5.541	1.00 0.00
ATOM	455	CZ2	TRP	52	0.236	-24.359	-6.776	1.00 0.00
ATOM	456	CH2	TRP	52	1.556	-23.891	-6.805	1.00 0.00
ATOM	457	CZ3	TRP	52	2.223	-23.616	-5.601	1.00 0.00
ATOM	458	CE3	TRP	52	1.578	-23.802	-4.365	1.00 0.00
ATOM	459	CD2	TRP	52	0.246	-24.267	-4.299	1.00 0.00
ATOM	460	C	TRP	52	-1.083	-21.981	-1.741	1.00 0.00
ATOM	461	O	TRP	52	-0.827	-21.386	-2.785	1.00 0.00
ATOM	462	N	ARG	53	-2.179	-21.715	-1.019	1.00 0.00
ATOM	463	CA	ARG	53	-3.154	-20.693	-1.375	1.00 0.00
ATOM	464	CB	ARG	53	-4.378	-20.735	-0.443	1.00 0.00
ATOM	465	CG	ARG	53	-5.314	-21.902	-0.797	1.00 0.00
ATOM	466	CD	ARG	53	-6.392	-22.130	0.272	1.00 0.00
ATOM	467	NE	ARG	53	-7.187	-20.920	0.542	1.00 0.00
ATOM	468	CZ	ARG	53	-8.471	-20.694	0.208	1.00 0.00
ATOM	469	NH1	ARG	53	-9.050	-19.556	0.619	1.00 0.00
ATOM	470	NH2	ARG	53	-9.179	-21.574	-0.513	1.00 0.00

315					316				
ATOM	471	C	ARG	53	-2.447	-19.340	-1.336	1.00	0.00
ATOM	472	O	ARG	53	-2.550	-18.558	-2.280	1.00	0.00
ATOM	473	N	THR	54	-1.706	-19.077	-0.255	1.00	0.00
ATOM	474	CA	THR	54	-0.944	-17.849	-0.102	1.00	0.00
ATOM	475	CB	THR	54	-0.281	-17.833	1.284	1.00	0.00
ATOM	476	CG2	THR	54	0.463	-16.523	1.552	1.00	0.00
ATOM	477	OG1	THR	54	-1.288	-17.993	2.262	1.00	0.00
ATOM	478	C	THR	54	0.074	-17.716	-1.241	1.00	0.00
ATOM	479	O	THR	54	0.200	-16.643	-1.822	1.00	0.00
ATOM	480	N	MET	55	0.798	-18.795	-1.571	1.00	0.00
ATOM	481	CA	MET	55	1.805	-18.792	-2.627	1.00	0.00
ATOM	482	CB	MET	55	2.588	-20.117	-2.613	1.00	0.00
ATOM	483	CG	MET	55	4.013	-20.013	-3.188	1.00	0.00
ATOM	484	SD	MET	55	4.356	-20.614	-4.872	1.00	0.00
ATOM	485	CE	MET	55	3.643	-19.324	-5.919	1.00	0.00
ATOM	486	C	MET	55	1.181	-18.496	-3.991	1.00	0.00
ATOM	487	O	MET	55	1.549	-17.507	-4.627	1.00	0.00
ATOM	488	N	LYS	56	0.248	-19.346	-4.446	1.00	0.00
ATOM	489	CA	LYS	56	-0.420	-19.193	-5.734	1.00	0.00
ATOM	490	CB	LYS	56	-1.386	-20.360	-6.023	1.00	0.00
ATOM	491	CG	LYS	56	-2.693	-20.309	-5.228	1.00	0.00
ATOM	492	CD	LYS	56	-3.407	-21.669	-5.137	1.00	0.00
ATOM	493	CE	LYS	56	-3.853	-22.220	-6.498	1.00	0.00
ATOM	494	NZ	LYS	56	-4.722	-23.408	-6.358	1.00	0.00
ATOM	495	C	LYS	56	-1.022	-17.793	-5.877	1.00	0.00
ATOM	496	O	LYS	56	-0.967	-17.234	-6.968	1.00	0.00
ATOM	497	N	LYS	57	-1.551	-17.219	-4.786	1.00	0.00
ATOM	498	CA	LYS	57	-2.099	-15.866	-4.757	1.00	0.00
ATOM	499	CB	LYS	57	-2.836	-15.637	-3.422	1.00	0.00
ATOM	500	CG	LYS	57	-3.098	-14.157	-3.083	1.00	0.00
ATOM	501	CD	LYS	57	-3.901	-14.035	-1.780	1.00	0.00
ATOM	502	CE	LYS	57	-3.618	-12.730	-1.018	1.00	0.00
ATOM	503	NZ	LYS	57	-3.912	-11.516	-1.804	1.00	0.00
ATOM	504	C	LYS	57	-0.972	-14.843	-4.937	1.00	0.00
ATOM	505	O	LYS	57	-1.056	-13.986	-5.813	1.00	0.00
ATOM	506	N	LEU	58	0.059	-14.923	-4.086	1.00	0.00
ATOM	507	CA	LEU	58	1.199	-14.016	-4.064	1.00	0.00
ATOM	508	CB	LEU	58	2.192	-14.464	-2.980	1.00	0.00
ATOM	509	CG	LEU	58	3.436	-13.570	-2.848	1.00	0.00
ATOM	510	CD1	LEU	58	3.073	-12.138	-2.437	1.00	0.00
ATOM	511	CD2	LEU	58	4.372	-14.174	-1.795	1.00	0.00
ATOM	512	C	LEU	58	1.857	-13.897	-5.438	1.00	0.00
ATOM	513	O	LEU	58	1.948	-12.797	-5.979	1.00	0.00
ATOM	514	N	LYS	59	2.311	-15.019	-6.010	1.00	0.00
ATOM	515	CA	LYS	59	2.930	-14.999	-7.331	1.00	0.00
ATOM	516	CB	LYS	59	3.618	-16.339	-7.630	1.00	0.00
ATOM	517	CG	LYS	59	4.248	-16.333	-9.032	1.00	0.00
ATOM	518	CD	LYS	59	4.993	-17.634	-9.347	1.00	0.00
ATOM	519	CE	LYS	59	5.548	-17.558	-10.778	1.00	0.00
ATOM	520	NZ	LYS	59	6.229	-18.801	-11.181	1.00	0.00

317

318

ATOM	521	C	LYS	59	1.877	-14.689	-8.394	1.00	0.00
ATOM	522	O	LYS	59	2.174	-14.018	-9.378	1.00	0.00
ATOM	523	N	LEU	60	0.662	-15.208	-8.190	1.00	0.00
ATOM	524	CA	LEU	60	-0.476	-15.080	-9.081	1.00	0.00
ATOM	525	CB	LEU	60	-0.726	-13.620	-9.507	1.00	0.00
ATOM	526	CG	LEU	60	-2.201	-13.328	-9.836	1.00	0.00
ATOM	527	CD1	LEU	60	-2.358	-11.835	-10.147	1.00	0.00
ATOM	528	CD2	LEU	60	-2.730	-14.146	-11.020	1.00	0.00
ATOM	529	C	LEU	60	-0.271	-16.070	-10.226	1.00	0.00
ATOM	530	O	LEU	60	-0.019	-15.689	-11.368	1.00	0.00
ATOM	531	N	ILE	61	-0.376	-17.363	-9.899	1.00	0.00
ATOM	532	CA	ILE	61	-0.219	-18.438	-10.870	1.00	0.00
ATOM	533	CB	ILE	61	-0.067	-19.796	-10.150	1.00	0.00
ATOM	534	CG2	ILE	61	-0.165	-20.977	-11.127	1.00	0.00
ATOM	535	CG1	ILE	61	1.291	-19.801	-9.422	1.00	0.00
ATOM	536	CD1	ILE	61	1.549	-21.088	-8.637	1.00	0.00
ATOM	537	C	ILE	61	-1.384	-18.359	-11.867	1.00	0.00
ATOM	538	O	ILE	61	-2.495	-17.980	-11.498	1.00	0.00
ATOM	539	N	SER	62	-1.108	-18.695	-13.134	1.00	0.00
ATOM	540	CA	SER	62	-2.059	-18.647	-14.239	1.00	0.00
ATOM	541	CB	SER	62	-1.281	-18.751	-15.561	1.00	0.00
ATOM	542	OG	SER	62	-2.154	-18.646	-16.666	1.00	0.00
ATOM	543	C	SER	62	-3.150	-19.717	-14.132	1.00	0.00
ATOM	544	O	SER	62	-3.194	-20.638	-14.948	1.00	0.00
ATOM	545	N	SER	63	-4.035	-19.570	-13.142	1.00	0.00
ATOM	546	CA	SER	63	-5.170	-20.443	-12.868	1.00	0.00
ATOM	547	CB	SER	63	-6.121	-20.489	-14.075	1.00	0.00
ATOM	548	OG	SER	63	-6.427	-19.178	-14.508	1.00	0.00
ATOM	549	C	SER	63	-4.751	-21.847	-12.426	1.00	0.00
ATOM	550	O	SER	63	-3.578	-22.216	-12.467	1.00	0.00
ATOM	551	N	ASP	64	-5.743	-22.628	-11.993	1.00	0.00
ATOM	552	CA	ASP	64	-5.576	-23.996	-11.531	1.00	0.00
ATOM	553	CB	ASP	64	-6.778	-24.376	-10.655	1.00	0.00
ATOM	554	CG	ASP	64	-6.961	-23.396	-9.504	1.00	0.00
ATOM	555	OD1	ASP	64	-6.377	-23.666	-8.434	1.00	0.00
ATOM	556	OD2	ASP	64	-7.657	-22.382	-9.723	1.00	0.00
ATOM	557	C	ASP	64	-5.464	-24.945	-12.725	1.00	0.00
ATOM	558	O	ASP	64	-5.628	-24.539	-13.875	1.00	0.00
ATOM	559	N	SER	65	-5.188	-26.220	-12.443	1.00	0.00
ATOM	560	CA	SER	65	-5.056	-27.293	-13.417	1.00	0.00
ATOM	561	CB	SER	65	-3.688	-27.228	-14.113	1.00	0.00
ATOM	562	OG	SER	65	-3.631	-26.145	-15.020	1.00	0.00
ATOM	563	C	SER	65	-5.216	-28.618	-12.674	1.00	0.00
ATOM	564	O	SER	65	-5.021	-28.669	-11.460	1.00	0.00
ATOM	565	N	GLU	66	-5.568	-29.683	-13.406	1.00	0.00
ATOM	566	CA	GLU	66	-5.737	-31.019	-12.847	1.00	0.00
ATOM	567	CB	GLU	66	-6.219	-31.961	-13.959	1.00	0.00
ATOM	568	CG	GLU	66	-6.575	-33.354	-13.432	1.00	0.00
ATOM	569	CD	GLU	66	-7.205	-34.205	-14.529	1.00	0.00
ATOM	570	OE1	GLU	66	-8.435	-34.076	-14.709	1.00	0.00

(161)

特開2003-135087

319

320

ATOM	571	OE2	GLU	66	-6.446	-34.954	-15.181	1.00	0.00
ATOM	572	C	GLU	66	-4.412	-31.474	-12.225	1.00	0.00
ATOM	573	O	GLU	66	-4.395	-32.042	-11.134	1.00	0.00
ATOM	574	N	ASP	67	-3.313	-31.189	-12.928	1.00	0.00
ATOM	575	CA	ASP	67	-1.946	-31.473	-12.536	1.00	0.00
ATOM	576	CB	ASP	67	-1.498	-32.814	-13.128	1.00	0.00
ATOM	577	CG	ASP	67	-0.052	-33.139	-12.767	1.00	0.00
ATOM	578	OD1	ASP	67	0.246	-33.172	-11.553	1.00	0.00
ATOM	579	OD2	ASP	67	0.751	-33.316	-13.708	1.00	0.00
ATOM	580	C	ASP	67	-1.093	-30.310	-13.048	1.00	0.00
ATOM	581	OT1	ASP	67	-1.463	-29.768	-14.114	1.00	0.00
ATOM	582	OT2	ASP	67	-0.305	-29.783	-12.232	1.00	0.00
ATOM	583	O5'	GUA	68	-6.968	-41.172	10.757	1.00	0.00
ATOM	584	C5'	GUA	68	-6.743	-41.861	9.547	1.00	0.00
ATOM	585	C4'	GUA	68	-7.048	-40.954	8.353	1.00	0.00
ATOM	586	O4'	GUA	68	-8.360	-40.429	8.430	1.00	0.00
ATOM	587	C1'	GUA	68	-8.432	-39.352	7.523	1.00	0.00
ATOM	588	N9	GUA	68	-9.579	-38.472	7.829	1.00	0.00
ATOM	589	C8	GUA	68	-9.921	-37.919	9.033	1.00	0.00
ATOM	590	N7	GUA	68	-11.013	-37.209	9.004	1.00	0.00
ATOM	591	C5	GUA	68	-11.418	-37.276	7.674	1.00	0.00
ATOM	592	C6	GUA	68	-12.538	-36.680	7.017	1.00	0.00
ATOM	593	O6	GUA	68	-13.445	-36.014	7.515	1.00	0.00
ATOM	594	N1	GUA	68	-12.537	-36.921	5.647	1.00	0.00
ATOM	595	C2	GUA	68	-11.584	-37.669	4.984	1.00	0.00
ATOM	596	N2	GUA	68	-11.693	-37.795	3.661	1.00	0.00
ATOM	597	N3	GUA	68	-10.550	-38.254	5.602	1.00	0.00
ATOM	598	C4	GUA	68	-10.522	-38.018	6.940	1.00	0.00
ATOM	599	C3'	GUA	68	-6.136	-39.721	8.263	1.00	0.00
ATOM	600	C2'	GUA	68	-7.113	-38.646	7.772	1.00	0.00
ATOM	601	O3'	GUA	68	-5.080	-40.004	7.354	1.00	0.00
ATOM	602	P	THY	69	-3.948	-38.922	6.931	1.00	0.00
ATOM	603	OP1	THY	69	-3.591	-38.123	8.123	1.00	0.00
ATOM	604	OP2	THY	69	-2.894	-39.631	6.174	1.00	0.00
ATOM	605	O5'	THY	69	-4.732	-37.965	5.897	1.00	0.00
ATOM	606	C5'	THY	69	-5.427	-38.509	4.790	1.00	0.00
ATOM	607	C4'	THY	69	-6.428	-37.507	4.202	1.00	0.00
ATOM	608	O4'	THY	69	-7.491	-37.094	5.026	1.00	0.00
ATOM	609	C1'	THY	69	-8.014	-35.895	4.504	1.00	0.00
ATOM	610	N1	THY	69	-8.879	-35.243	5.521	1.00	0.00
ATOM	611	C6	THY	69	-8.497	-35.252	6.841	1.00	0.00
ATOM	612	C5	THY	69	-9.250	-34.645	7.792	1.00	0.00
ATOM	613	C7	THY	69	-8.709	-34.685	9.210	1.00	0.00
ATOM	614	C4	THY	69	-10.501	-33.990	7.464	1.00	0.00
ATOM	615	O4	THY	69	-11.244	-33.422	8.259	1.00	0.00
ATOM	616	N3	THY	69	-10.835	-34.055	6.121	1.00	0.00
ATOM	617	C2	THY	69	-10.073	-34.642	5.121	1.00	0.00
ATOM	618	O2	THY	69	-10.458	-34.615	3.955	1.00	0.00
ATOM	619	C3'	THY	69	-5.778	-36.207	3.714	1.00	0.00
ATOM	620	C2'	THY	69	-6.719	-35.128	4.264	1.00	0.00

321				322				
ATOM	621	O3' THY	69	-5.664	-36.204	2.302	1.00	0.00
ATOM	622	P THY	70	-4.897	-35.013	1.535	1.00	0.00
ATOM	623	OP1 THY	70	-4.204	-35.567	0.349	1.00	0.00
ATOM	624	OP2 THY	70	-4.099	-34.288	2.541	1.00	0.00
ATOM	625	O5' THY	70	-6.079	-34.028	1.070	1.00	0.00
ATOM	626	C5' THY	70	-7.104	-34.451	0.192	1.00	0.00
ATOM	627	C4' THY	70	-8.274	-33.463	0.264	1.00	0.00
ATOM	628	O4' THY	70	-8.713	-33.312	1.599	1.00	0.00
ATOM	629	C1' THY	70	-9.404	-32.086	1.693	1.00	0.00
ATOM	630	N1 THY	70	-9.578	-31.690	3.116	1.00	0.00
ATOM	631	C6 THY	70	-8.536	-31.828	4.000	1.00	0.00
ATOM	632	C5 THY	70	-8.691	-31.534	5.315	1.00	0.00
ATOM	633	C7 THY	70	-7.470	-31.720	6.187	1.00	0.00
ATOM	634	C4 THY	70	-9.951	-31.060	5.846	1.00	0.00
ATOM	635	O4 THY	70	-10.158	-30.750	7.015	1.00	0.00
ATOM	636	N3 THY	70	-10.960	-30.973	4.903	1.00	0.00
ATOM	637	C2 THY	70	-10.823	-31.221	3.544	1.00	0.00
ATOM	638	O2 THY	70	-11.755	-30.997	2.778	1.00	0.00
ATOM	639	C3' THY	70	-7.937	-32.040	-0.210	1.00	0.00
ATOM	640	C2' THY	70	-8.482	-31.146	0.919	1.00	0.00
ATOM	641	O3' THY	70	-8.577	-31.833	-1.458	1.00	0.00
ATOM	642	P ADE	71	-8.327	-30.524	-2.364	1.00	0.00
ATOM	643	OP1 ADE	71	-6.915	-30.091	-2.223	1.00	0.00
ATOM	644	OP2 ADE	71	-8.885	-30.758	-3.710	1.00	0.00
ATOM	645	O5' ADE	71	-9.226	-29.405	-1.642	1.00	0.00
ATOM	646	C5' ADE	71	-10.639	-29.405	-1.727	1.00	0.00
ATOM	647	C4' ADE	71	-11.227	-28.298	-0.839	1.00	0.00
ATOM	648	O4' ADE	71	-11.263	-28.679	0.537	1.00	0.00
ATOM	649	C1' ADE	71	-10.964	-27.531	1.308	1.00	0.00
ATOM	650	N9 ADE	71	-10.575	-27.797	2.713	1.00	0.00
ATOM	651	C8 ADE	71	-9.419	-28.363	3.185	1.00	0.00
ATOM	652	N7 ADE	71	-9.290	-28.344	4.480	1.00	0.00
ATOM	653	C5 ADE	71	-10.450	-27.714	4.906	1.00	0.00
ATOM	654	C6 ADE	71	-10.939	-27.378	6.181	1.00	0.00
ATOM	655	N6 ADE	71	-10.280	-27.696	7.296	1.00	0.00
ATOM	656	N1 ADE	71	-12.115	-26.729	6.275	1.00	0.00
ATOM	657	C2 ADE	71	-12.767	-26.424	5.153	1.00	0.00
ATOM	658	N3 ADE	71	-12.423	-26.697	3.897	1.00	0.00
ATOM	659	C4 ADE	71	-11.235	-27.357	3.838	1.00	0.00
ATOM	660	C3' ADE	71	-10.385	-27.007	-0.888	1.00	0.00
ATOM	661	C2' ADE	71	-9.767	-27.051	0.506	1.00	0.00
ATOM	662	O3' ADE	71	-11.231	-25.894	-1.060	1.00	0.00
ATOM	663	P GUA	72	-10.680	-24.437	-1.470	1.00	0.00
ATOM	664	OP1 GUA	72	-11.091	-24.136	-2.856	1.00	0.00
ATOM	665	OP2 GUA	72	-9.259	-24.286	-1.073	1.00	0.00
ATOM	666	O5' GUA	72	-11.533	-23.523	-0.477	1.00	0.00
ATOM	667	C5' GUA	72	-12.939	-23.426	-0.575	1.00	0.00
ATOM	668	C4' GUA	72	-13.430	-22.583	0.602	1.00	0.00
ATOM	669	O4' GUA	72	-13.140	-23.273	1.810	1.00	0.00
ATOM	670	C1' GUA	72	-12.535	-22.399	2.740	1.00	0.00

323				324					
ATOM	671	N9	GUA	72	-11.640	-23.144	3.658	1.00	0.00
ATOM	672	C8	GUA	72	-10.532	-23.889	3.339	1.00	0.00
ATOM	673	N7	GUA	72	-9.885	-24.362	4.366	1.00	0.00
ATOM	674	C5	GUA	72	-10.625	-23.914	5.455	1.00	0.00
ATOM	675	C6	GUA	72	-10.417	-24.118	6.851	1.00	0.00
ATOM	676	O6	GUA	72	-9.483	-24.701	7.396	1.00	0.00
ATOM	677	N1	GUA	72	-11.434	-23.577	7.629	1.00	0.00
ATOM	678	C2	GUA	72	-12.515	-22.882	7.123	1.00	0.00
ATOM	679	N2	GUA	72	-13.396	-22.386	7.994	1.00	0.00
ATOM	680	N3	GUA	72	-12.689	-22.647	5.814	1.00	0.00
ATOM	681	C4	GUA	72	-11.720	-23.196	5.032	1.00	0.00
ATOM	682	C3'	GUA	72	-12.670	-21.250	0.663	1.00	0.00
ATOM	683	C2'	GUA	72	-11.716	-21.488	1.833	1.00	0.00
ATOM	684	O3'	GUA	72	-13.564	-20.180	0.868	1.00	0.00
ATOM	685	P	GUA	73	-13.052	-18.657	1.009	1.00	0.00
ATOM	686	OP1	GUA	73	-13.976	-17.781	0.260	1.00	0.00
ATOM	687	OP2	GUA	73	-11.596	-18.622	0.723	1.00	0.00
ATOM	688	O5'	GUA	73	-13.287	-18.430	2.585	1.00	0.00
ATOM	689	C5'	GUA	73	-14.593	-18.538	3.130	1.00	0.00
ATOM	690	C4'	GUA	73	-14.587	-18.429	4.656	1.00	0.00
ATOM	691	O4'	GUA	73	-13.687	-19.378	5.208	1.00	0.00
ATOM	692	C1'	GUA	73	-12.867	-18.746	6.171	1.00	0.00
ATOM	693	N9	GUA	73	-11.574	-19.453	6.280	1.00	0.00
ATOM	694	C8	GUA	73	-10.695	-19.765	5.276	1.00	0.00
ATOM	695	N7	GUA	73	-9.652	-20.442	5.661	1.00	0.00
ATOM	696	C5	GUA	73	-9.848	-20.587	7.029	1.00	0.00
ATOM	697	C6	GUA	73	-9.040	-21.248	7.996	1.00	0.00
ATOM	698	O6	GUA	73	-7.972	-21.822	7.812	1.00	0.00
ATOM	699	N1	GUA	73	-9.595	-21.206	9.271	1.00	0.00
ATOM	700	C2	GUA	73	-10.789	-20.589	9.583	1.00	0.00
ATOM	701	N2	GUA	73	-11.173	-20.595	10.861	1.00	0.00
ATOM	702	N3	GUA	73	-11.544	-19.952	8.678	1.00	0.00
ATOM	703	C4	GUA	73	-11.022	-19.987	7.420	1.00	0.00
ATOM	704	C3'	GUA	73	-14.140	-17.053	5.168	1.00	0.00
ATOM	705	C2'	GUA	73	-12.701	-17.347	5.585	1.00	0.00
ATOM	706	O3'	GUA	73	-14.972	-16.710	6.262	1.00	0.00
ATOM	707	P	GUA	74	-14.891	-15.287	7.015	1.00	0.00
ATOM	708	OP1	GUA	74	-16.258	-14.728	7.099	1.00	0.00
ATOM	709	OP2	GUA	74	-13.803	-14.483	6.415	1.00	0.00
ATOM	710	O5'	GUA	74	-14.432	-15.734	8.492	1.00	0.00
ATOM	711	C5'	GUA	74	-15.289	-16.507	9.314	1.00	0.00
ATOM	712	C4'	GUA	74	-14.645	-16.805	10.672	1.00	0.00
ATOM	713	O4'	GUA	74	-13.419	-17.496	10.482	1.00	0.00
ATOM	714	C1'	GUA	74	-12.357	-16.809	11.117	1.00	0.00
ATOM	715	N9	GUA	74	-11.130	-16.968	10.305	1.00	0.00
ATOM	716	C8	GUA	74	-10.949	-16.647	8.984	1.00	0.00
ATOM	717	N7	GUA	74	-9.808	-17.031	8.487	1.00	0.00
ATOM	718	C5	GUA	74	-9.179	-17.654	9.557	1.00	0.00
ATOM	719	C6	GUA	74	-7.925	-18.330	9.612	1.00	0.00
ATOM	720	O6	GUA	74	-7.146	-18.543	8.688	1.00	0.00

325					326				
ATOM	721	N1	GUA	74	-7.627	-18.794	10.887	1.00	0.00
ATOM	722	C2	GUA	74	-8.463	-18.677	11.978	1.00	0.00
ATOM	723	N2	GUA	74	-8.025	-19.136	13.151	1.00	0.00
ATOM	724	N3	GUA	74	-9.664	-18.083	11.917	1.00	0.00
ATOM	725	C4	GUA	74	-9.965	-17.595	10.683	1.00	0.00
ATOM	726	C3'	GUA	74	-14.313	-15.539	11.473	1.00	0.00
ATOM	727	C2'	GUA	74	-12.830	-15.359	11.154	1.00	0.00
ATOM	728	O3'	GUA	74	-14.561	-15.793	12.845	1.00	0.00
ATOM	729	P	THY	75	-14.326	-14.680	13.989	1.00	0.00
ATOM	730	OP1	THY	75	-15.300	-14.920	15.077	1.00	0.00
ATOM	731	OP2	THY	75	-14.245	-13.349	13.349	1.00	0.00
ATOM	732	O5'	THY	75	-12.860	-15.070	14.528	1.00	0.00
ATOM	733	C5'	THY	75	-12.650	-16.270	15.248	1.00	0.00
ATOM	734	C4'	THY	75	-11.170	-16.420	15.601	1.00	0.00
ATOM	735	O4'	THY	75	-10.387	-16.440	14.421	1.00	0.00
ATOM	736	C1'	THY	75	-9.141	-15.840	14.691	1.00	0.00
ATOM	737	N1	THY	75	-8.481	-15.452	13.413	1.00	0.00
ATOM	738	C6	THY	75	-9.175	-14.727	12.471	1.00	0.00
ATOM	739	C5	THY	75	-8.652	-14.483	11.244	1.00	0.00
ATOM	740	C7	THY	75	-9.493	-13.656	10.289	1.00	0.00
ATOM	741	C4	THY	75	-7.351	-14.989	10.864	1.00	0.00
ATOM	742	O4	THY	75	-6.824	-14.857	9.764	1.00	0.00
ATOM	743	N3	THY	75	-6.700	-15.674	11.873	1.00	0.00
ATOM	744	C2	THY	75	-7.197	-15.929	13.141	1.00	0.00
ATOM	745	O2	THY	75	-6.511	-16.543	13.954	1.00	0.00
ATOM	746	C3'	THY	75	-10.632	-15.255	16.447	1.00	0.00
ATOM	747	C2'	THY	75	-9.572	-14.637	15.528	1.00	0.00
ATOM	748	O3'	THY	75	-10.101	-15.783	17.649	1.00	0.00
ATOM	749	P	THY	76	-9.477	-14.849	18.807	1.00	0.00
ATOM	750	OP1	THY	76	-9.659	-15.534	20.107	1.00	0.00
ATOM	751	OP2	THY	76	-9.968	-13.464	18.626	1.00	0.00
ATOM	752	O5'	THY	76	-7.914	-14.882	18.435	1.00	0.00
ATOM	753	C5'	THY	76	-7.168	-16.075	18.570	1.00	0.00
ATOM	754	C4'	THY	76	-5.752	-15.867	18.039	1.00	0.00
ATOM	755	O4'	THY	76	-5.785	-15.539	16.662	1.00	0.00
ATOM	756	C1'	THY	76	-4.754	-14.618	16.394	1.00	0.00
ATOM	757	N1	THY	76	-4.977	-13.954	15.079	1.00	0.00
ATOM	758	C6	THY	76	-6.081	-13.158	14.876	1.00	0.00
ATOM	759	C5	THY	76	-6.317	-12.574	13.676	1.00	0.00
ATOM	760	C7	THY	76	-7.564	-11.714	13.596	1.00	0.00
ATOM	761	C4	THY	76	-5.424	-12.761	12.551	1.00	0.00
ATOM	762	O4	THY	76	-5.556	-12.256	11.441	1.00	0.00
ATOM	763	N3	THY	76	-4.357	-13.603	12.816	1.00	0.00
ATOM	764	C2	THY	76	-4.096	-14.226	14.027	1.00	0.00
ATOM	765	O2	THY	76	-3.126	-14.977	14.127	1.00	0.00
ATOM	766	C3'	THY	76	-5.020	-14.710	18.737	1.00	0.00
ATOM	767	C2'	THY	76	-4.868	-13.691	17.604	1.00	0.00
ATOM	768	O3'	THY	76	-3.779	-15.199	19.204	1.00	0.00
ATOM	769	P	ADE	77	-2.780	-14.318	20.113	1.00	0.00
ATOM	770	OP1	ADE	77	-2.449	-15.093	21.329	1.00	0.00

327				328					
ATOM	771	OP2 ADE	77	-3.297	-12.938	20.225	1.00	0.00	
ATOM	772	O5' ADE	77	-1.492	-14.301	19.159	1.00	0.00	
ATOM	773	C5' ADE	77	-0.786	-15.498	18.918	1.00	0.00	
ATOM	774	C4' ADE	77	0.242	-15.290	17.813	1.00	0.00	
ATOM	775	O4' ADE	77	-0.391	-14.836	16.629	1.00	0.00	
ATOM	776	C1' ADE	77	0.379	-13.816	16.026	1.00	0.00	
ATOM	777	N9 ADE	77	-0.520	-12.959	15.223	1.00	0.00	
ATOM	778	C8 ADE	77	-1.691	-12.369	15.630	1.00	0.00	
ATOM	779	N7 ADE	77	-2.353	-11.770	14.681	1.00	0.00	
ATOM	780	C5 ADE	77	-1.549	-11.956	13.562	1.00	0.00	
ATOM	781	C6 ADE	77	-1.685	-11.559	12.218	1.00	0.00	
ATOM	782	N6 ADE	77	-2.756	-10.892	11.789	1.00	0.00	
ATOM	783	N1 ADE	77	-0.696	-11.845	11.347	1.00	0.00	
ATOM	784	C2 ADE	77	0.358	-12.525	11.797	1.00	0.00	
ATOM	785	N3 ADE	77	0.583	-12.999	13.022	1.00	0.00	
ATOM	786	C4 ADE	77	-0.417	-12.661	13.881	1.00	0.00	
ATOM	787	C3' ADE	77	1.321	-14.258	18.154	1.00	0.00	
ATOM	788	C2' ADE	77	0.945	-13.086	17.242	1.00	0.00	
ATOM	789	O3' ADE	77	2.551	-14.872	17.820	1.00	0.00	
ATOM	790	P GUA	78	3.974	-14.314	18.313	1.00	0.00	
ATOM	791	OP1 GUA	78	3.828	-13.722	19.660	1.00	0.00	
ATOM	792	OP2 GUA	78	4.978	-15.377	18.090	1.00	0.00	
ATOM	793	O5' GUA	78	4.222	-13.138	17.256	1.00	0.00	
ATOM	794	C5' GUA	78	4.476	-13.425	15.898	1.00	0.00	
ATOM	795	C4' GUA	78	4.500	-12.143	15.061	1.00	0.00	
ATOM	796	O4' GUA	78	3.190	-11.771	14.671	1.00	0.00	
ATOM	797	C1' GUA	78	3.196	-10.374	14.510	1.00	0.00	
ATOM	798	N9 GUA	78	1.833	-9.836	14.313	1.00	0.00	
ATOM	799	C8 GUA	78	0.822	-9.669	15.223	1.00	0.00	
ATOM	800	N7 GUA	78	-0.267	-9.156	14.722	1.00	0.00	
ATOM	801	C5 GUA	78	0.036	-8.978	13.376	1.00	0.00	
ATOM	802	C6 GUA	78	-0.762	-8.467	12.309	1.00	0.00	
ATOM	803	O6 GUA	78	-1.910	-8.031	12.355	1.00	0.00	
ATOM	804	N1 GUA	78	-0.098	-8.494	11.088	1.00	0.00	
ATOM	805	C2 GUA	78	1.184	-8.965	10.904	1.00	0.00	
ATOM	806	N2 GUA	78	1.684	-8.933	9.667	1.00	0.00	
ATOM	807	N3 GUA	78	1.941	-9.436	11.905	1.00	0.00	
ATOM	808	C4 GUA	78	1.312	-9.415	13.113	1.00	0.00	
ATOM	809	C3' GUA	78	5.069	-10.903	15.782	1.00	0.00	
ATOM	810	C2' GUA	78	3.854	-9.973	15.826	1.00	0.00	
ATOM	811	O3' GUA	78	6.092	-10.351	14.981	1.00	0.00	
ATOM	812	P GUA	79	7.163	-9.299	15.558	1.00	0.00	
ATOM	813	OP1 GUA	79	6.575	-8.605	16.724	1.00	0.00	
ATOM	814	OP2 GUA	79	8.438	-10.040	15.711	1.00	0.00	
ATOM	815	O5' GUA	79	7.265	-8.265	14.329	1.00	0.00	
ATOM	816	C5' GUA	79	7.741	-8.672	13.059	1.00	0.00	
ATOM	817	C4' GUA	79	7.118	-7.800	11.963	1.00	0.00	
ATOM	818	O4' GUA	79	5.704	-7.850	12.072	1.00	0.00	
ATOM	819	C1' GUA	79	5.168	-6.564	11.844	1.00	0.00	
ATOM	820	N9 GUA	79	3.840	-6.428	12.488	1.00	0.00	

329					330				
ATOM	821	C8	GUA	79	3.507	-6.653	13.800	1.00	0.00
ATOM	822	N7	GUA	79	2.260	-6.408	14.089	1.00	0.00
ATOM	823	C5	GUA	79	1.718	-5.983	12.881	1.00	0.00
ATOM	824	C6	GUA	79	0.394	-5.551	12.568	1.00	0.00
ATOM	825	O6	GUA	79	-0.574	-5.454	13.320	1.00	0.00
ATOM	826	N1	GUA	79	0.243	-5.223	11.226	1.00	0.00
ATOM	827	C2	GUA	79	1.255	-5.282	10.291	1.00	0.00
ATOM	828	N2	GUA	79	0.976	-4.856	9.059	1.00	0.00
ATOM	829	N3	GUA	79	2.504	-5.673	10.582	1.00	0.00
ATOM	830	C4	GUA	79	2.672	-6.013	11.890	1.00	0.00
ATOM	831	C3'	GUA	79	7.511	-6.316	12.050	1.00	0.00
ATOM	832	C2'	GUA	79	6.206	-5.669	12.515	1.00	0.00
ATOM	833	O3'	GUA	79	7.921	-5.876	10.765	1.00	0.00
ATOM	834	P	GUA	80	8.448	-4.374	10.487	1.00	0.00
ATOM	835	OP1	GUA	80	9.440	-4.426	9.390	1.00	0.00
ATOM	836	OP2	GUA	80	8.812	-3.748	11.777	1.00	0.00
ATOM	837	O5'	GUA	80	7.123	-3.645	9.931	1.00	0.00
ATOM	838	C5'	GUA	80	6.596	-3.974	8.660	1.00	0.00
ATOM	839	C4'	GUA	80	5.343	-3.147	8.367	1.00	0.00
ATOM	840	O4'	GUA	80	4.347	-3.423	9.335	1.00	0.00
ATOM	841	C1'	GUA	80	3.681	-2.225	9.659	1.00	0.00
ATOM	842	N9	GUA	80	2.976	-2.343	10.954	1.00	0.00
ATOM	843	C8	GUA	80	3.481	-2.708	12.175	1.00	0.00
ATOM	844	N7	GUA	80	2.593	-2.759	13.128	1.00	0.00
ATOM	845	C5	GUA	80	1.406	-2.404	12.495	1.00	0.00
ATOM	846	C6	GUA	80	0.079	-2.310	13.013	1.00	0.00
ATOM	847	O6	GUA	80	-0.309	-2.517	14.161	1.00	0.00
ATOM	848	N1	GUA	80	-0.843	-1.949	12.039	1.00	0.00
ATOM	849	C2	GUA	80	-0.535	-1.697	10.719	1.00	0.00
ATOM	850	N2	GUA	80	-1.532	-1.328	9.911	1.00	0.00
ATOM	851	N3	GUA	80	0.710	-1.784	10.229	1.00	0.00
ATOM	852	C4	GUA	80	1.631	-2.146	11.164	1.00	0.00
ATOM	853	C3'	GUA	80	5.594	-1.632	8.445	1.00	0.00
ATOM	854	C2'	GUA	80	4.839	-1.234	9.710	1.00	0.00
ATOM	855	O3'	GUA	80	5.041	-0.973	7.323	1.00	0.00
ATOM	856	O5'	CYT	81	-10.383	-0.629	13.364	1.00	0.00
ATOM	857	C5'	CYT	81	-9.988	0.387	12.465	1.00	0.00
ATOM	858	C4'	CYT	81	-8.704	-0.002	11.725	1.00	0.00
ATOM	859	O4'	CYT	81	-7.650	-0.280	12.623	1.00	0.00
ATOM	860	C1'	CYT	81	-6.662	-0.956	11.878	1.00	0.00
ATOM	861	N1	CYT	81	-5.675	-1.639	12.751	1.00	0.00
ATOM	862	C6	CYT	81	-6.097	-2.368	13.833	1.00	0.00
ATOM	863	C5	CYT	81	-5.226	-3.050	14.612	1.00	0.00
ATOM	864	C4	CYT	81	-3.835	-2.960	14.266	1.00	0.00
ATOM	865	N4	CYT	81	-2.910	-3.597	14.986	1.00	0.00
ATOM	866	N3	CYT	81	-3.434	-2.262	13.196	1.00	0.00
ATOM	867	C2	CYT	81	-4.324	-1.604	12.405	1.00	0.00
ATOM	868	O2	CYT	81	-3.924	-1.009	11.407	1.00	0.00
ATOM	869	C3'	CYT	81	-8.833	-1.281	10.886	1.00	0.00
ATOM	870	C2'	CYT	81	-7.485	-1.973	11.100	1.00	0.00

331				332				
ATOM	871	03' CYT	81	-9.081	-0.938	9.532	1.00	0.00
ATOM	872	P CYT	82	-9.279	-2.051	8.377	1.00	0.00
ATOM	873	OP1 CYT	82	-9.695	-3.316	9.023	1.00	0.00
ATOM	874	OP2 CYT	82	-10.119	-1.458	7.314	1.00	0.00
ATOM	875	05' CYT	82	-7.786	-2.255	7.793	1.00	0.00
ATOM	876	C5' CYT	82	-7.144	-1.243	7.037	1.00	0.00
ATOM	877	C4' CYT	82	-5.764	-1.708	6.548	1.00	0.00
ATOM	878	04' CYT	82	-4.918	-1.995	7.645	1.00	0.00
ATOM	879	C1' CYT	82	-4.163	-3.167	7.402	1.00	0.00
ATOM	880	N1 CYT	82	-3.922	-3.819	8.712	1.00	0.00
ATOM	881	C6 CYT	82	-4.988	-4.020	9.546	1.00	0.00
ATOM	882	C5 CYT	82	-4.846	-4.548	10.775	1.00	0.00
ATOM	883	C4 CYT	82	-3.513	-4.898	11.177	1.00	0.00
ATOM	884	N4 CYT	82	-3.308	-5.476	12.360	1.00	0.00
ATOM	885	N3 CYT	82	-2.468	-4.713	10.357	1.00	0.00
ATOM	886	C2 CYT	82	-2.637	-4.185	9.108	1.00	0.00
ATOM	887	02 CYT	82	-1.670	-4.051	8.361	1.00	0.00
ATOM	888	C3' CYT	82	-5.834	-2.986	5.703	1.00	0.00
ATOM	889	C2' CYT	82	-5.100	-4.021	6.548	1.00	0.00
ATOM	890	03' CYT	82	-5.220	-2.735	4.447	1.00	0.00
ATOM	891	P CYT	83	-5.274	-3.788	3.224	1.00	0.00
ATOM	892	OP1 CYT	83	-6.459	-4.655	3.401	1.00	0.00
ATOM	893	OP2 CYT	83	-5.093	-3.038	1.961	1.00	0.00
ATOM	894	05' CYT	83	-3.959	-4.683	3.472	1.00	0.00
ATOM	895	C5' CYT	83	-2.680	-4.260	3.037	1.00	0.00
ATOM	896	C4' CYT	83	-1.608	-5.217	3.570	1.00	0.00
ATOM	897	04' CYT	83	-1.648	-5.228	4.984	1.00	0.00
ATOM	898	C1' CYT	83	-1.025	-6.401	5.469	1.00	0.00
ATOM	899	N1 CYT	83	-1.748	-6.887	6.669	1.00	0.00
ATOM	900	C6 CYT	83	-3.115	-6.933	6.646	1.00	0.00
ATOM	901	C5 CYT	83	-3.836	-7.252	7.744	1.00	0.00
ATOM	902	C4 CYT	83	-3.093	-7.579	8.928	1.00	0.00
ATOM	903	N4 CYT	83	-3.731	-7.871	10.063	1.00	0.00
ATOM	904	N3 CYT	83	-1.754	-7.635	8.913	1.00	0.00
ATOM	905	C2 CYT	83	-1.045	-7.317	7.792	1.00	0.00
ATOM	906	02 CYT	83	0.178	-7.434	7.781	1.00	0.00
ATOM	907	C3' CYT	83	-1.852	-6.678	3.179	1.00	0.00
ATOM	908	C2' CYT	83	-1.182	-7.413	4.337	1.00	0.00
ATOM	909	03' CYT	83	-1.275	-6.990	1.919	1.00	0.00
ATOM	910	P THY	84	-1.394	-8.460	1.240	1.00	0.00
ATOM	911	OP1 THY	84	-2.761	-8.985	1.464	1.00	0.00
ATOM	912	OP2 THY	84	-0.874	-8.375	-0.142	1.00	0.00
ATOM	913	05' THY	84	-0.370	-9.363	2.097	1.00	0.00
ATOM	914	C5' THY	84	1.027	-9.124	2.070	1.00	0.00
ATOM	915	C4' THY	84	1.731	-9.992	3.118	1.00	0.00
ATOM	916	04' THY	84	1.136	-9.822	4.396	1.00	0.00
ATOM	917	C1' THY	84	1.055	-11.064	5.065	1.00	0.00
ATOM	918	N1 THY	84	-0.015	-11.015	6.107	1.00	0.00
ATOM	919	C6 THY	84	-1.309	-10.720	5.745	1.00	0.00
ATOM	920	C5 THY	84	-2.299	-10.641	6.665	1.00	0.00

333					334				
ATOM	921	C7	THY	84	-3.689	-10.353	6.125	1.00	0.00
ATOM	922	C4	THY	84	-2.045	-10.849	8.073	1.00	0.00
ATOM	923	O4	THY	84	-2.888	-10.787	8.959	1.00	0.00
ATOM	924	N3	THY	84	-0.723	-11.139	8.378	1.00	0.00
ATOM	925	C2	THY	84	0.316	-11.228	7.454	1.00	0.00
ATOM	926	O2	THY	84	1.456	-11.478	7.837	1.00	0.00
ATOM	927	C3'	THY	84	1.644	-11.490	2.792	1.00	0.00
ATOM	928	C2'	THY	84	0.727	-12.008	3.905	1.00	0.00
ATOM	929	O3'	THY	84	2.957	-12.026	2.812	1.00	0.00
ATOM	930	P	ADE	85	3.273	-13.555	2.413	1.00	0.00
ATOM	931	OP1	ADE	85	2.291	-13.999	1.400	1.00	0.00
ATOM	932	OP2	ADE	85	4.722	-13.691	2.144	1.00	0.00
ATOM	933	O5'	ADE	85	2.952	-14.301	3.795	1.00	0.00
ATOM	934	C5'	ADE	85	3.738	-14.068	4.947	1.00	0.00
ATOM	935	C4'	ADE	85	3.104	-14.753	6.157	1.00	0.00
ATOM	936	O4'	ADE	85	1.869	-14.180	6.530	1.00	0.00
ATOM	937	C1'	ADE	85	1.168	-15.164	7.259	1.00	0.00
ATOM	938	N9	ADE	85	-0.244	-14.774	7.436	1.00	0.00
ATOM	939	C8	ADE	85	-1.122	-14.317	6.485	1.00	0.00
ATOM	940	N7	ADE	85	-2.281	-13.952	6.956	1.00	0.00
ATOM	941	C5	ADE	85	-2.169	-14.203	8.319	1.00	0.00
ATOM	942	C6	ADE	85	-3.051	-14.020	9.400	1.00	0.00
ATOM	943	N6	ADE	85	-4.273	-13.511	9.241	1.00	0.00
ATOM	944	N1	ADE	85	-2.648	-14.386	10.631	1.00	0.00
ATOM	945	C2	ADE	85	-1.435	-14.911	10.780	1.00	0.00
ATOM	946	N3	ADE	85	-0.505	-15.116	9.853	1.00	0.00
ATOM	947	C4	ADE	85	-0.941	-14.732	8.621	1.00	0.00
ATOM	948	C3'	ADE	85	2.782	-16.229	5.895	1.00	0.00
ATOM	949	C2'	ADE	85	1.319	-16.357	6.327	1.00	0.00
ATOM	950	O3'	ADE	85	3.669	-17.005	6.666	1.00	0.00
ATOM	951	P	ADE	86	3.734	-18.599	6.535	1.00	0.00
ATOM	952	OP1	ADE	86	2.875	-19.005	5.398	1.00	0.00
ATOM	953	OP2	ADE	86	5.163	-18.986	6.555	1.00	0.00
ATOM	954	O5'	ADE	86	3.036	-19.081	7.897	1.00	0.00
ATOM	955	C5'	ADE	86	3.644	-18.802	9.139	1.00	0.00
ATOM	956	C4'	ADE	86	2.673	-19.021	10.291	1.00	0.00
ATOM	957	O4'	ADE	86	1.459	-18.329	10.076	1.00	0.00
ATOM	958	C1'	ADE	86	0.382	-19.127	10.518	1.00	0.00
ATOM	959	N9	ADE	86	-0.844	-18.680	9.821	1.00	0.00
ATOM	960	C8	ADE	86	-1.036	-18.536	8.469	1.00	0.00
ATOM	961	N7	ADE	86	-2.167	-17.981	8.140	1.00	0.00
ATOM	962	C5	ADE	86	-2.783	-17.759	9.363	1.00	0.00
ATOM	963	C6	ADE	86	-4.018	-17.184	9.710	1.00	0.00
ATOM	964	N6	ADE	86	-4.861	-16.712	8.791	1.00	0.00
ATOM	965	N1	ADE	86	-4.330	-17.066	11.014	1.00	0.00
ATOM	966	C2	ADE	86	-3.461	-17.499	11.922	1.00	0.00
ATOM	967	N3	ADE	86	-2.268	-18.056	11.730	1.00	0.00
ATOM	968	C4	ADE	86	-1.983	-18.168	10.401	1.00	0.00
ATOM	969	C3'	ADE	86	2.308	-20.495	10.512	1.00	0.00
ATOM	970	C2'	ADE	86	0.835	-20.526	10.103	1.00	0.00

335

336

ATOM	971	O3'	ADE	86	2.520	-20.738	11.888	1.00	0.00
ATOM	972	P	CYT	87	2.451	-22.187	12.569	1.00	0.00
ATOM	973	OP1	CYT	87	3.388	-22.166	13.717	1.00	0.00
ATOM	974	OP2	CYT	87	2.605	-23.211	11.515	1.00	0.00
ATOM	975	O5'	CYT	87	0.949	-22.217	13.140	1.00	0.00
ATOM	976	C5'	CYT	87	0.609	-21.430	14.265	1.00	0.00
ATOM	977	C4'	CYT	87	-0.904	-21.276	14.421	1.00	0.00
ATOM	978	O4'	CYT	87	-1.499	-20.831	13.224	1.00	0.00
ATOM	979	C1'	CYT	87	-2.871	-21.146	13.292	1.00	0.00
ATOM	980	N1	CYT	87	-3.480	-21.085	11.939	1.00	0.00
ATOM	981	C6	CYT	87	-2.792	-21.558	10.850	1.00	0.00
ATOM	982	C5	CYT	87	-3.247	-21.376	9.591	1.00	0.00
ATOM	983	C4	CYT	87	-4.482	-20.665	9.443	1.00	0.00
ATOM	984	N4	CYT	87	-4.930	-20.351	8.230	1.00	0.00
ATOM	985	N3	CYT	87	-5.178	-20.256	10.513	1.00	0.00
ATOM	986	C2	CYT	87	-4.717	-20.464	11.775	1.00	0.00
ATOM	987	O2	CYT	87	-5.388	-20.090	12.735	1.00	0.00
ATOM	988	C3'	CYT	87	-1.651	-22.556	14.811	1.00	0.00
ATOM	989	C2'	CYT	87	-2.836	-22.565	13.842	1.00	0.00
ATOM	990	O3'	CYT	87	-2.035	-22.428	16.172	1.00	0.00
ATOM	991	P	CYT	88	-2.773	-23.608	16.993	1.00	0.00
ATOM	992	OP1	CYT	88	-2.574	-23.343	18.435	1.00	0.00
ATOM	993	OP2	CYT	88	-2.355	-24.904	16.417	1.00	0.00
ATOM	994	O5'	CYT	88	-4.332	-23.373	16.644	1.00	0.00
ATOM	995	C5'	CYT	88	-5.042	-22.260	17.158	1.00	0.00
ATOM	996	C4'	CYT	88	-6.411	-22.129	16.482	1.00	0.00
ATOM	997	O4'	CYT	88	-6.261	-21.981	15.087	1.00	0.00
ATOM	998	C1'	CYT	88	-7.436	-22.441	14.455	1.00	0.00
ATOM	999	N1	CYT	88	-7.121	-22.800	13.054	1.00	0.00
ATOM	1000	C6	CYT	88	-6.002	-23.544	12.789	1.00	0.00
ATOM	1001	C5	CYT	88	-5.618	-23.835	11.532	1.00	0.00
ATOM	1002	C4	CYT	88	-6.443	-23.325	10.476	1.00	0.00
ATOM	1003	N4	CYT	88	-6.089	-23.508	9.206	1.00	0.00
ATOM	1004	N3	CYT	88	-7.574	-22.657	10.739	1.00	0.00
ATOM	1005	C2	CYT	88	-7.957	-22.391	12.019	1.00	0.00
ATOM	1006	O2	CYT	88	-9.024	-21.819	12.230	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.325	-23.351	16.672	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.763	-23.697	15.250	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.393	-22.977	17.527	1.00	0.00
ATOM	1010	P	CYT	89	-9.625	-23.956	17.888	1.00	0.00
ATOM	1011	OP1	CYT	89	-9.199	-25.357	17.664	1.00	0.00
ATOM	1012	OP2	CYT	89	-10.165	-23.552	19.204	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.713	-23.576	16.759	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.329	-22.299	16.731	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.295	-22.195	15.545	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.594	-22.413	14.338	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.420	-23.086	13.411	1.00	0.00
ATOM	1018	N1	CYT	89	-11.544	-23.872	12.506	1.00	0.00
ATOM	1019	C6	CYT	89	-10.543	-24.630	13.051	1.00	0.00
ATOM	1020	C5	CYT	89	-9.629	-25.262	12.290	1.00	0.00

(170)

特開2003-135087

337

338

ATOM	1021	C4	CYT	89	-9.761	-25.112	10.868	1.00	0.00
ATOM	1022	N4	CYT	89	-8.891	-25.701	10.048	1.00	0.00
ATOM	1023	N3	CYT	89	-10.770	-24.409	10.333	1.00	0.00
ATOM	1024	C2	CYT	89	-11.690	-23.785	11.123	1.00	0.00
ATOM	1025	O2	CYT	89	-12.627	-23.180	10.607	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.418	-23.243	15.594	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.243	-24.020	14.291	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.667	-22.578	15.698	1.00	0.00
ATOM	1029	P	THY	90	-16.072	-23.366	15.830	1.00	0.00
ATOM	1030	OP1	THY	90	-15.817	-24.684	16.453	1.00	0.00
ATOM	1031	OP2	THY	90	-17.064	-22.447	16.431	1.00	0.00
ATOM	1032	O5'	THY	90	-16.483	-23.605	14.291	1.00	0.00
ATOM	1033	C5'	THY	90	-16.782	-22.519	13.435	1.00	0.00
ATOM	1034	C4'	THY	90	-16.896	-23.002	11.986	1.00	0.00
ATOM	1035	O4'	THY	90	-15.688	-23.605	11.565	1.00	0.00
ATOM	1036	C1'	THY	90	-15.986	-24.509	10.525	1.00	0.00
ATOM	1037	N1	THY	90	-14.845	-25.442	10.334	1.00	0.00
ATOM	1038	C6	THY	90	-14.309	-26.092	11.420	1.00	0.00
ATOM	1039	C5	THY	90	-13.216	-26.882	11.298	1.00	0.00
ATOM	1040	C7	THY	90	-12.731	-27.563	12.565	1.00	0.00
ATOM	1041	C4	THY	90	-12.560	-27.071	10.022	1.00	0.00
ATOM	1042	O4	THY	90	-11.561	-27.759	9.835	1.00	0.00
ATOM	1043	N3	THY	90	-13.158	-26.393	8.973	1.00	0.00
ATOM	1044	C2	THY	90	-14.299	-25.607	9.060	1.00	0.00
ATOM	1045	O2	THY	90	-14.788	-25.115	8.047	1.00	0.00
ATOM	1046	C3'	THY	90	-17.982	-24.069	11.777	1.00	0.00
ATOM	1047	C2'	THY	90	-17.227	-25.207	11.078	1.00	0.00
ATOM	1048	O3'	THY	90	-19.019	-23.506	10.990	1.00	0.00
ATOM	1049	P	ADE	91	-20.405	-24.279	10.697	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.414	-23.274	10.297	1.00	0.00
ATOM	1051	OP2	ADE	91	-20.685	-25.197	11.823	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.039	-25.166	9.407	1.00	0.00
ATOM	1053	C5'	ADE	91	-19.864	-24.572	8.136	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.284	-25.587	7.147	1.00	0.00
ATOM	1055	O4'	ADE	91	-17.996	-26.009	7.539	1.00	0.00
ATOM	1056	C1'	ADE	91	-17.726	-27.198	6.834	1.00	0.00
ATOM	1057	N9	ADE	91	-16.604	-27.915	7.464	1.00	0.00
ATOM	1058	C8	ADE	91	-16.417	-28.165	8.796	1.00	0.00
ATOM	1059	N7	ADE	91	-15.309	-28.798	9.072	1.00	0.00
ATOM	1060	C5	ADE	91	-14.737	-29.002	7.818	1.00	0.00
ATOM	1061	C6	ADE	91	-13.548	-29.626	7.394	1.00	0.00
ATOM	1062	N6	ADE	91	-12.669	-30.147	8.251	1.00	0.00
ATOM	1063	N1	ADE	91	-13.295	-29.711	6.072	1.00	0.00
ATOM	1064	C2	ADE	91	-14.170	-29.184	5.218	1.00	0.00
ATOM	1065	N3	ADE	91	-15.304	-28.548	5.488	1.00	0.00
ATOM	1066	C4	ADE	91	-15.534	-28.490	6.827	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.100	-26.884	7.028	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.022	-27.973	7.021	1.00	0.00
ATOM	1069	O3'	ADE	91	-20.877	-26.812	5.844	1.00	0.00
ATOM	1070	P	ADE	92	-21.787	-28.033	5.307	1.00	0.00

(171)

特開2003-135087

339

340

ATOM	1071	OP1	ADE	92	-22.162	-28.889	6.453	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.837	-27.472	4.429	1.00	0.00
ATOM	1073	O5'	ADE	92	-20.747	-28.848	4.385	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.138	-28.243	3.259	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.124	-29.200	2.628	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.091	-29.504	3.553	1.00	0.00
ATOM	1077	C1'	ADE	92	-17.735	-30.863	3.414	1.00	0.00
ATOM	1078	N9	ADE	92	-17.054	-31.341	4.639	1.00	0.00
ATOM	1079	C8	ADE	92	-17.499	-31.272	5.935	1.00	0.00
ATOM	1080	N7	ADE	92	-16.663	-31.734	6.822	1.00	0.00
ATOM	1081	C5	ADE	92	-15.580	-32.148	6.056	1.00	0.00
ATOM	1082	C6	ADE	92	-14.347	-32.742	6.389	1.00	0.00
ATOM	1083	N6	ADE	92	-14.010	-33.014	7.651	1.00	0.00
ATOM	1084	N1	ADE	92	-13.488	-33.051	5.401	1.00	0.00
ATOM	1085	C2	ADE	92	-13.841	-32.787	4.145	1.00	0.00
ATOM	1086	N3	ADE	92	-14.965	-32.232	3.699	1.00	0.00
ATOM	1087	C4	ADE	92	-15.809	-31.925	4.721	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.756	-30.544	2.231	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.111	-31.500	3.238	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.416	-30.833	0.885	1.00	0.00
ATOM	1091	P	CYT	93	-20.047	-32.086	0.086	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.095	-32.712	0.921	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.363	-31.651	-1.292	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.800	-33.096	0.023	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.709	-32.864	-0.847	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.635	-33.920	-0.590	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.261	-33.858	0.768	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.807	-35.125	1.180	1.00	0.00
ATOM	1099	N1	CYT	93	-15.957	-35.232	2.652	1.00	0.00
ATOM	1100	C6	CYT	93	-17.099	-34.781	3.264	1.00	0.00
ATOM	1101	C5	CYT	93	-17.260	-34.845	4.604	1.00	0.00
ATOM	1102	C4	CYT	93	-16.172	-35.398	5.359	1.00	0.00
ATOM	1103	N4	CYT	93	-16.211	-35.420	6.693	1.00	0.00
ATOM	1104	N3	CYT	93	-15.068	-35.855	4.755	1.00	0.00
ATOM	1105	C2	CYT	93	-14.930	-35.795	3.402	1.00	0.00
ATOM	1106	O2	CYT	93	-13.912	-36.231	2.871	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.141	-35.354	-0.805	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.752	-36.097	0.472	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.518	-35.942	-1.927	1.00	0.00

END

HEADER 000000

REMARK 0.00526 1.63149 0.02482 0.01763 1.94553 1.59368

0.00000

REMARK 2.90550 0.26365 0.61994 1.23983 0.78208

REMARK 0.01033 0.00557 0.00851 0.01677 0.00901

REMARK 122 120 2 0 0 0

0

341				342						
REMARK	1378			305	460		273	340		
REMARK	0.03472			0.14379	0.03043		0.04629	0.14379		0.14182
REMARK	0.00000			0.00000						
REMARK	0			0	0		0	0		0
0										
ATOM	1	N	GLU	1	10.037	-21.308	20.149	1.00	0.00	
ATOM	2	CA	GLU	1	8.804	-21.934	20.652	1.00	0.00	
ATOM	3	CB	GLU	1	8.752	-23.413	20.240	1.00	0.00	
ATOM	4	CG	GLU	1	7.396	-24.063	20.537	1.00	0.00	
ATOM	5	CD	GLU	1	7.464	-25.561	20.269	1.00	0.00	
ATOM	6	OE1	GLU	1	8.085	-26.246	21.110	1.00	0.00	
ATOM	7	OE2	GLU	1	6.924	-25.981	19.223	1.00	0.00	
ATOM	8	C	GLU	1	8.692	-21.677	22.160	1.00	0.00	
ATOM	9	O	GLU	1	8.418	-20.544	22.550	1.00	0.00	
ATOM	10	N	LYS	2	8.914	-22.696	23.001	1.00	0.00	
ATOM	11	CA	LYS	2	8.849	-22.574	24.453	1.00	0.00	
ATOM	12	CB	LYS	2	9.156	-23.944	25.080	1.00	0.00	
ATOM	13	CG	LYS	2	9.263	-23.931	26.614	1.00	0.00	
ATOM	14	CD	LYS	2	7.975	-23.443	27.292	1.00	0.00	
ATOM	15	CE	LYS	2	8.105	-23.563	28.815	1.00	0.00	
ATOM	16	NZ	LYS	2	6.888	-23.096	29.508	1.00	0.00	
ATOM	17	C	LYS	2	9.817	-21.493	24.933	1.00	0.00	
ATOM	18	O	LYS	2	9.419	-20.568	25.640	1.00	0.00	
ATOM	19	N	HIS	3	11.089	-21.610	24.540	1.00	0.00	
ATOM	20	CA	HIS	3	12.133	-20.662	24.900	1.00	0.00	
ATOM	21	CB	HIS	3	13.492	-21.370	24.874	1.00	0.00	
ATOM	22	CG	HIS	3	13.563	-22.524	25.842	1.00	0.00	
ATOM	23	ND1	HIS	3	14.049	-22.389	27.135	1.00	0.00	
ATOM	24	CE1	HIS	3	13.969	-23.596	27.720	1.00	0.00	
ATOM	25	NE2	HIS	3	13.465	-24.530	26.914	1.00	0.00	
ATOM	26	CD2	HIS	3	13.211	-23.849	25.727	1.00	0.00	
ATOM	27	C	HIS	3	12.066	-19.457	23.959	1.00	0.00	
ATOM	28	O	HIS	3	12.976	-19.234	23.164	1.00	0.00	
ATOM	29	N	ARG	4	10.970	-18.692	24.066	1.00	0.00	
ATOM	30	CA	ARG	4	10.660	-17.496	23.286	1.00	0.00	
ATOM	31	CB	ARG	4	11.771	-16.432	23.379	1.00	0.00	
ATOM	32	CG	ARG	4	12.061	-16.021	24.830	1.00	0.00	
ATOM	33	CD	ARG	4	13.245	-15.051	24.920	1.00	0.00	
ATOM	34	NE	ARG	4	12.981	-13.793	24.207	1.00	0.00	
ATOM	35	CZ	ARG	4	13.873	-12.801	24.040	1.00	0.00	
ATOM	36	NH1	ARG	4	13.531	-11.711	23.342	1.00	0.00	
ATOM	37	NH2	ARG	4	15.101	-12.898	24.568	1.00	0.00	
ATOM	38	C	ARG	4	10.319	-17.840	21.831	1.00	0.00	
ATOM	39	O	ARG	4	10.654	-18.914	21.333	1.00	0.00	
ATOM	40	N	ALA	5	9.642	-16.914	21.143	1.00	0.00	
ATOM	41	CA	ALA	5	9.242	-17.073	19.754	1.00	0.00	
ATOM	42	CB	ALA	5	7.937	-17.876	19.665	1.00	0.00	

343				344				
ATOM	43	C	ALA	5	9.141	-15.692	19.108	1.00 0.00
ATOM	44	O	ALA	5	10.111	-15.230	18.511	1.00 0.00
ATOM	45	N	ARG	6	7.981	-15.036	19.238	1.00 0.00
ATOM	46	CA	ARG	6	7.710	-13.711	18.693	1.00 0.00
ATOM	47	CB	ARG	6	8.462	-12.629	19.492	1.00 0.00
ATOM	48	CG	ARG	6	8.354	-12.799	21.020	1.00 0.00
ATOM	49	CD	ARG	6	7.915	-11.508	21.724	1.00 0.00
ATOM	50	NE	ARG	6	6.565	-11.104	21.313	1.00 0.00
ATOM	51	CZ	ARG	6	5.419	-11.752	21.573	1.00 0.00
ATOM	52	NH1	ARG	6	5.376	-12.745	22.473	1.00 0.00
ATOM	53	NH2	ARG	6	4.319	-11.384	20.909	1.00 0.00
ATOM	54	C	ARG	6	8.031	-13.667	17.194	1.00 0.00
ATOM	55	O	ARG	6	8.626	-12.703	16.715	1.00 0.00
ATOM	56	N	LYS	7	7.643	-14.720	16.455	1.00 0.00
ATOM	57	CA	LYS	7	7.877	-14.841	15.019	1.00 0.00
ATOM	58	CB	LYS	7	9.393	-14.985	14.770	1.00 0.00
ATOM	59	CG	LYS	7	9.821	-14.452	13.392	1.00 0.00
ATOM	60	CD	LYS	7	11.099	-15.136	12.886	1.00 0.00
ATOM	61	CE	LYS	7	10.814	-16.390	12.042	1.00 0.00
ATOM	62	NZ	LYS	7	9.964	-17.377	12.735	1.00 0.00
ATOM	63	C	LYS	7	7.148	-16.027	14.352	1.00 0.00
ATOM	64	O	LYS	7	7.392	-16.273	13.170	1.00 0.00
ATOM	65	N	ARG	8	6.289	-16.779	15.061	1.00 0.00
ATOM	66	CA	ARG	8	5.568	-17.947	14.540	1.00 0.00
ATOM	67	CB	ARG	8	4.517	-17.532	13.496	1.00 0.00
ATOM	68	CG	ARG	8	3.645	-16.367	13.970	1.00 0.00
ATOM	69	CD	ARG	8	2.478	-16.112	13.012	1.00 0.00
ATOM	70	NE	ARG	8	1.382	-17.073	13.215	1.00 0.00
ATOM	71	CZ	ARG	8	0.070	-16.778	13.153	1.00 0.00
ATOM	72	NH1	ARG	8	-0.853	-17.701	13.433	1.00 0.00
ATOM	73	NH2	ARG	8	-0.348	-15.558	12.817	1.00 0.00
ATOM	74	C	ARG	8	6.501	-19.031	13.966	1.00 0.00
ATOM	75	O	ARG	8	7.722	-18.862	13.914	1.00 0.00
ATOM	76	N	GLN	9	5.932	-20.153	13.506	1.00 0.00
ATOM	77	CA	GLN	9	6.686	-21.238	12.892	1.00 0.00
ATOM	78	CB	GLN	9	6.015	-22.590	13.181	1.00 0.00
ATOM	79	CG	GLN	9	6.908	-23.778	12.792	1.00 0.00
ATOM	80	CD	GLN	9	6.148	-25.098	12.896	1.00 0.00
ATOM	81	OE1	GLN	9	5.914	-25.769	11.893	1.00 0.00
ATOM	82	NE2	GLN	9	5.762	-25.478	14.114	1.00 0.00
ATOM	83	C	GLN	9	6.784	-20.921	11.398	1.00 0.00
ATOM	84	O	GLN	9	6.198	-21.605	10.559	1.00 0.00
ATOM	85	N	ALA	10	7.530	-19.861	11.069	1.00 0.00
ATOM	86	CA	ALA	10	7.723	-19.413	9.697	1.00 0.00
ATOM	87	CB	ALA	10	8.603	-18.162	9.669	1.00 0.00
ATOM	88	C	ALA	10	8.326	-20.524	8.836	1.00 0.00
ATOM	89	O	ALA	10	9.119	-21.330	9.321	1.00 0.00
ATOM	90	N	TRP	11	7.937	-20.564	7.560	1.00 0.00
ATOM	91	CA	TRP	11	8.405	-21.561	6.607	1.00 0.00
ATOM	92	CB	TRP	11	7.421	-21.631	5.433	1.00 0.00

345					346				
ATOM	93	CG	TRP	11	6.102	-22.282	5.739	1.00	0.00
ATOM	94	CD1	TRP	11	5.160	-21.825	6.596	1.00	0.00
ATOM	95	NE1	TRP	11	4.083	-22.688	6.620	1.00	0.00
ATOM	96	CE2	TRP	11	4.281	-23.757	5.769	1.00	0.00
ATOM	97	CZ2	TRP	11	3.511	-24.884	5.434	1.00	0.00
ATOM	98	CH2	TRP	11	4.007	-25.806	4.515	1.00	0.00
ATOM	99	CZ3	TRP	11	5.265	-25.603	3.927	1.00	0.00
ATOM	100	CE3	TRP	11	6.033	-24.473	4.263	1.00	0.00
ATOM	101	CD2	TRP	11	5.564	-23.521	5.192	1.00	0.00
ATOM	102	C	TRP	11	9.838	-21.277	6.137	1.00	0.00
ATOM	103	O	TRP	11	10.324	-20.151	6.232	1.00	0.00
ATOM	104	N	LEU	12	10.503	-22.321	5.626	1.00	0.00
ATOM	105	CA	LEU	12	11.866	-22.312	5.101	1.00	0.00
ATOM	106	CB	LEU	12	12.810	-22.895	6.167	1.00	0.00
ATOM	107	CG	LEU	12	14.293	-22.978	5.757	1.00	0.00
ATOM	108	CD1	LEU	12	14.894	-21.596	5.475	1.00	0.00
ATOM	109	CD2	LEU	12	15.087	-23.647	6.884	1.00	0.00
ATOM	110	C	LEU	12	11.860	-23.151	3.820	1.00	0.00
ATOM	111	O	LEU	12	10.982	-23.997	3.666	1.00	0.00
ATOM	112	N	TRP	13	12.811	-22.929	2.900	1.00	0.00
ATOM	113	CA	TRP	13	12.870	-23.657	1.634	1.00	0.00
ATOM	114	CB	TRP	13	14.052	-23.257	0.754	1.00	0.00
ATOM	115	CG	TRP	13	15.386	-23.309	1.415	1.00	0.00
ATOM	116	CD1	TRP	13	16.034	-22.202	1.793	1.00	0.00
ATOM	117	NE1	TRP	13	17.235	-22.524	2.388	1.00	0.00
ATOM	118	CE2	TRP	13	17.415	-23.894	2.415	1.00	0.00
ATOM	119	CZ2	TRP	13	18.444	-24.714	2.901	1.00	0.00
ATOM	120	CH2	TRP	13	18.329	-26.107	2.776	1.00	0.00
ATOM	121	CZ3	TRP	13	17.192	-26.664	2.166	1.00	0.00
ATOM	122	CE3	TRP	13	16.166	-25.833	1.679	1.00	0.00
ATOM	123	CD2	TRP	13	16.245	-24.427	1.794	1.00	0.00
ATOM	124	C	TRP	13	12.847	-25.169	1.763	1.00	0.00
ATOM	125	O	TRP	13	12.489	-25.806	0.789	1.00	0.00
ATOM	126	N	GLU	14	13.201	-25.798	2.884	1.00	0.00
ATOM	127	CA	GLU	14	13.087	-27.251	2.884	1.00	0.00
ATOM	128	CB	GLU	14	13.730	-27.863	4.136	1.00	0.00
ATOM	129	CG	GLU	14	13.478	-29.375	4.244	1.00	0.00
ATOM	130	CD	GLU	14	13.806	-30.133	2.959	1.00	0.00
ATOM	131	OE1	GLU	14	12.903	-30.852	2.476	1.00	0.00
ATOM	132	OE2	GLU	14	14.948	-29.970	2.481	1.00	0.00
ATOM	133	C	GLU	14	11.604	-27.575	2.725	1.00	0.00
ATOM	134	O	GLU	14	11.200	-28.249	1.777	1.00	0.00
ATOM	135	N	GLU	15	10.800	-27.031	3.637	1.00	0.00
ATOM	136	CA	GLU	15	9.362	-27.172	3.622	1.00	0.00
ATOM	137	CB	GLU	15	8.796	-26.418	4.833	1.00	0.00
ATOM	138	CG	GLU	15	9.330	-26.969	6.160	1.00	0.00
ATOM	139	CD	GLU	15	8.517	-26.432	7.327	1.00	0.00
ATOM	140	OE1	GLU	15	8.579	-25.205	7.563	1.00	0.00
ATOM	141	OE2	GLU	15	7.801	-27.246	7.951	1.00	0.00
ATOM	142	C	GLU	15	8.802	-26.618	2.307	1.00	0.00

347

348

ATOM	143	O	GLU	15	8.153	-27.333	1.550	1.00	0.00
ATOM	144	N	ASP	16	9.050	-25.334	2.037	1.00	0.00
ATOM	145	CA	ASP	16	8.564	-24.635	0.855	1.00	0.00
ATOM	146	CB	ASP	16	9.023	-23.169	0.873	1.00	0.00
ATOM	147	CG	ASP	16	7.830	-22.233	0.882	1.00	0.00
ATOM	148	OD1	ASP	16	7.419	-21.843	1.993	1.00	0.00
ATOM	149	OD2	ASP	16	7.349	-21.905	-0.225	1.00	0.00
ATOM	150	C	ASP	16	8.985	-25.282	-0.458	1.00	0.00
ATOM	151	O	ASP	16	8.140	-25.611	-1.283	1.00	0.00
ATOM	152	N	LYS	17	10.290	-25.442	-0.675	1.00	0.00
ATOM	153	CA	LYS	17	10.813	-26.006	-1.909	1.00	0.00
ATOM	154	CB	LYS	17	12.353	-25.904	-1.981	1.00	0.00
ATOM	155	CG	LYS	17	12.837	-26.135	-3.418	1.00	0.00
ATOM	156	CD	LYS	17	14.371	-26.146	-3.460	1.00	0.00
ATOM	157	CE	LYS	17	14.908	-26.402	-4.875	1.00	0.00
ATOM	158	NZ	LYS	17	14.556	-27.746	-5.376	1.00	0.00
ATOM	159	C	LYS	17	10.259	-27.420	-2.108	1.00	0.00
ATOM	160	O	LYS	17	9.778	-27.731	-3.199	1.00	0.00
ATOM	161	N	ASN	18	10.297	-28.273	-1.071	1.00	0.00
ATOM	162	CA	ASN	18	9.763	-29.624	-1.203	1.00	0.00
ATOM	163	CB	ASN	18	10.278	-30.580	-0.107	1.00	0.00
ATOM	164	CG	ASN	18	9.453	-30.694	1.178	1.00	0.00
ATOM	165	OD1	ASN	18	8.230	-30.625	1.151	1.00	0.00
ATOM	166	ND2	ASN	18	10.112	-30.964	2.306	1.00	0.00
ATOM	167	C	ASN	18	8.246	-29.609	-1.448	1.00	0.00
ATOM	168	O	ASN	18	7.750	-30.457	-2.185	1.00	0.00
ATOM	169	N	LEU	19	7.509	-28.648	-0.870	1.00	0.00
ATOM	170	CA	LEU	19	6.066	-28.514	-1.057	1.00	0.00
ATOM	171	CB	LEU	19	5.490	-27.440	-0.121	1.00	0.00
ATOM	172	CG	LEU	19	3.980	-27.206	-0.289	1.00	0.00
ATOM	173	CD1	LEU	19	3.189	-28.488	-0.018	1.00	0.00
ATOM	174	CD2	LEU	19	3.520	-26.110	0.679	1.00	0.00
ATOM	175	C	LEU	19	5.764	-28.164	-2.510	1.00	0.00
ATOM	176	O	LEU	19	4.940	-28.819	-3.142	1.00	0.00
ATOM	177	N	ARG	20	6.433	-27.130	-3.035	1.00	0.00
ATOM	178	CA	ARG	20	6.277	-26.665	-4.407	1.00	0.00
ATOM	179	CB	ARG	20	7.280	-25.536	-4.686	1.00	0.00
ATOM	180	CG	ARG	20	6.960	-24.264	-3.885	1.00	0.00
ATOM	181	CD	ARG	20	8.150	-23.298	-3.917	1.00	0.00
ATOM	182	NE	ARG	20	8.005	-22.220	-2.923	1.00	0.00
ATOM	183	CZ	ARG	20	8.520	-20.983	-3.012	1.00	0.00
ATOM	184	NH1	ARG	20	9.184	-20.577	-4.103	1.00	0.00
ATOM	185	NH2	ARG	20	8.370	-20.148	-1.979	1.00	0.00
ATOM	186	C	ARG	20	6.487	-27.849	-5.353	1.00	0.00
ATOM	187	O	ARG	20	5.637	-28.130	-6.200	1.00	0.00
ATOM	188	N	SER	21	7.614	-28.553	-5.184	1.00	0.00
ATOM	189	CA	SER	21	7.929	-29.732	-5.976	1.00	0.00
ATOM	190	CB	SER	21	9.295	-30.285	-5.560	1.00	0.00
ATOM	191	OG	SER	21	10.300	-29.317	-5.791	1.00	0.00
ATOM	192	C	SER	21	6.831	-30.784	-5.803	1.00	0.00

349

350

ATOM	193	O	SER	21	6.378	-31.365	-6.785	1.00	0.00
ATOM	194	N	GLY	22	6.400	-31.018	-4.560	1.00	0.00
ATOM	195	CA	GLY	22	5.364	-31.970	-4.197	1.00	0.00
ATOM	196	C	GLY	22	4.084	-31.745	-4.994	1.00	0.00
ATOM	197	O	GLY	22	3.611	-32.659	-5.661	1.00	0.00
ATOM	198	N	VAL	23	3.523	-30.534	-4.937	1.00	0.00
ATOM	199	CA	VAL	23	2.306	-30.194	-5.661	1.00	0.00
ATOM	200	CB	VAL	23	1.860	-28.760	-5.326	1.00	0.00
ATOM	201	CG1	VAL	23	0.662	-28.354	-6.195	1.00	0.00
ATOM	202	CG2	VAL	23	1.448	-28.655	-3.854	1.00	0.00
ATOM	203	C	VAL	23	2.522	-30.373	-7.162	1.00	0.00
ATOM	204	O	VAL	23	1.671	-30.928	-7.850	1.00	0.00
ATOM	205	N	ARG	24	3.656	-29.902	-7.683	1.00	0.00
ATOM	206	CA	ARG	24	3.946	-29.999	-9.106	1.00	0.00
ATOM	207	CB	ARG	24	5.147	-29.097	-9.416	1.00	0.00
ATOM	208	CG	ARG	24	5.177	-28.659	-10.887	1.00	0.00
ATOM	209	CD	ARG	24	6.224	-27.561	-11.122	1.00	0.00
ATOM	210	NE	ARG	24	6.013	-26.395	-10.247	1.00	0.00
ATOM	211	CZ	ARG	24	5.061	-25.455	-10.389	1.00	0.00
ATOM	212	NH1	ARG	24	4.246	-25.456	-11.451	1.00	0.00
ATOM	213	NH2	ARG	24	4.923	-24.511	-9.449	1.00	0.00
ATOM	214	C	ARG	24	4.148	-31.448	-9.579	1.00	0.00
ATOM	215	O	ARG	24	3.873	-31.756	-10.737	1.00	0.00
ATOM	216	N	LYS	25	4.633	-32.333	-8.700	1.00	0.00
ATOM	217	CA	LYS	25	4.916	-33.733	-8.995	1.00	0.00
ATOM	218	CB	LYS	25	6.113	-34.173	-8.130	1.00	0.00
ATOM	219	CG	LYS	25	6.719	-35.540	-8.491	1.00	0.00
ATOM	220	CD	LYS	25	7.893	-35.473	-9.481	1.00	0.00
ATOM	221	CE	LYS	25	7.518	-34.828	-10.819	1.00	0.00
ATOM	222	NZ	LYS	25	8.587	-34.986	-11.822	1.00	0.00
ATOM	223	C	LYS	25	3.714	-34.660	-8.788	1.00	0.00
ATOM	224	O	LYS	25	3.537	-35.599	-9.560	1.00	0.00
ATOM	225	N	TYR	26	2.917	-34.431	-7.738	1.00	0.00
ATOM	226	CA	TYR	26	1.789	-35.280	-7.358	1.00	0.00
ATOM	227	CB	TYR	26	2.024	-35.757	-5.916	1.00	0.00
ATOM	228	CG	TYR	26	3.449	-36.220	-5.668	1.00	0.00
ATOM	229	CD1	TYR	26	3.999	-37.262	-6.437	1.00	0.00
ATOM	230	CE1	TYR	26	5.325	-37.673	-6.222	1.00	0.00
ATOM	231	CZ	TYR	26	6.106	-37.049	-5.235	1.00	0.00
ATOM	232	OH	TYR	26	7.395	-37.446	-5.035	1.00	0.00
ATOM	233	CE2	TYR	26	5.559	-36.010	-4.465	1.00	0.00
ATOM	234	CD2	TYR	26	4.234	-35.599	-4.680	1.00	0.00
ATOM	235	C	TYR	26	0.412	-34.626	-7.506	1.00	0.00
ATOM	236	O	TYR	26	-0.592	-35.304	-7.293	1.00	0.00
ATOM	237	N	GLY	27	0.356	-33.338	-7.864	1.00	0.00
ATOM	238	CA	GLY	27	-0.879	-32.584	-8.039	1.00	0.00
ATOM	239	C	GLY	27	-1.293	-31.888	-6.741	1.00	0.00
ATOM	240	O	GLY	27	-0.752	-32.180	-5.675	1.00	0.00
ATOM	241	N	GLU	28	-2.263	-30.969	-6.830	1.00	0.00
ATOM	242	CA	GLU	28	-2.789	-30.245	-5.677	1.00	0.00

351					352				
ATOM	243	CB	GLU	28	-3.361	-28.888	-6.129	1.00	0.00
ATOM	244	CG	GLU	28	-3.564	-27.945	-4.935	1.00	0.00
ATOM	245	CD	GLU	28	-3.937	-26.514	-5.315	1.00	0.00
ATOM	246	OE1	GLU	28	-3.431	-26.005	-6.341	1.00	0.00
ATOM	247	OE2	GLU	28	-4.691	-25.898	-4.529	1.00	0.00
ATOM	248	C	GLU	28	-3.818	-31.147	-4.983	1.00	0.00
ATOM	249	O	GLU	28	-4.315	-32.090	-5.597	1.00	0.00
ATOM	250	N	GLY	29	-4.127	-30.894	-3.707	1.00	0.00
ATOM	251	CA	GLY	29	-5.067	-31.724	-2.959	1.00	0.00
ATOM	252	C	GLY	29	-4.484	-33.125	-2.788	1.00	0.00
ATOM	253	O	GLY	29	-5.143	-34.121	-3.074	1.00	0.00
ATOM	254	N	ASN	30	-3.226	-33.171	-2.340	1.00	0.00
ATOM	255	CA	ASN	30	-2.423	-34.367	-2.119	1.00	0.00
ATOM	256	CB	ASN	30	-1.635	-34.674	-3.412	1.00	0.00
ATOM	257	CG	ASN	30	-2.435	-35.399	-4.498	1.00	0.00
ATOM	258	OD1	ASN	30	-2.328	-36.616	-4.641	1.00	0.00
ATOM	259	ND2	ASN	30	-3.203	-34.678	-5.313	1.00	0.00
ATOM	260	C	ASN	30	-1.474	-34.031	-0.962	1.00	0.00
ATOM	261	O	ASN	30	-0.278	-34.288	-1.035	1.00	0.00
ATOM	262	N	TRP	31	-1.995	-33.421	0.105	1.00	0.00
ATOM	263	CA	TRP	31	-1.223	-32.970	1.257	1.00	0.00
ATOM	264	CB	TRP	31	-2.067	-31.987	2.077	1.00	0.00
ATOM	265	CG	TRP	31	-2.782	-31.019	1.189	1.00	0.00
ATOM	266	CD1	TRP	31	-4.120	-30.887	1.064	1.00	0.00
ATOM	267	NE1	TRP	31	-4.403	-29.917	0.123	1.00	0.00
ATOM	268	CE2	TRP	31	-3.250	-29.378	-0.405	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.006	-28.396	-1.375	1.00	0.00
ATOM	270	CH2	TRP	31	-1.681	-28.070	-1.695	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.620	-28.723	-1.053	1.00	0.00
ATOM	272	CE3	TRP	31	-0.874	-29.708	-0.086	1.00	0.00
ATOM	273	CD2	TRP	31	-2.195	-30.062	0.262	1.00	0.00
ATOM	274	C	TRP	31	-0.665	-34.132	2.065	1.00	0.00
ATOM	275	O	TRP	31	0.518	-34.133	2.393	1.00	0.00
ATOM	276	N	SER	32	-1.500	-35.126	2.364	1.00	0.00
ATOM	277	CA	SER	32	-1.075	-36.316	3.093	1.00	0.00
ATOM	278	CB	SER	32	-2.290	-37.211	3.335	1.00	0.00
ATOM	279	OG	SER	32	-1.924	-38.394	4.014	1.00	0.00
ATOM	280	C	SER	32	0.004	-37.038	2.282	1.00	0.00
ATOM	281	O	SER	32	1.053	-37.415	2.801	1.00	0.00
ATOM	282	N	LYS	33	-0.253	-37.207	0.984	1.00	0.00
ATOM	283	CA	LYS	33	0.656	-37.841	0.045	1.00	0.00
ATOM	284	CB	LYS	33	-0.044	-37.853	-1.316	1.00	0.00
ATOM	285	CG	LYS	33	0.701	-38.597	-2.428	1.00	0.00
ATOM	286	CD	LYS	33	-0.133	-38.431	-3.699	1.00	0.00
ATOM	287	CE	LYS	33	0.397	-39.178	-4.924	1.00	0.00
ATOM	288	NZ	LYS	33	-0.410	-38.829	-6.113	1.00	0.00
ATOM	289	C	LYS	33	2.001	-37.098	0.054	1.00	0.00
ATOM	290	O	LYS	33	3.049	-37.720	0.227	1.00	0.00
ATOM	291	N	ILE	34	1.977	-35.769	-0.108	1.00	0.00
ATOM	292	CA	ILE	34	3.169	-34.927	-0.087	1.00	0.00

353					354				
ATOM	293	CB	ILE	34	2.794	-33.463	-0.399	1.00	0.00
ATOM	294	CG2	ILE	34	3.932	-32.498	-0.032	1.00	0.00
ATOM	295	CG1	ILE	34	2.478	-33.322	-1.899	1.00	0.00
ATOM	296	CD1	ILE	34	1.696	-32.046	-2.230	1.00	0.00
ATOM	297	C	ILE	34	3.906	-35.092	1.246	1.00	0.00
ATOM	298	O	ILE	34	5.125	-35.229	1.245	1.00	0.00
ATOM	299	N	LEU	35	3.179	-35.095	2.371	1.00	0.00
ATOM	300	CA	LEU	35	3.736	-35.269	3.708	1.00	0.00
ATOM	301	CB	LEU	35	2.613	-35.132	4.750	1.00	0.00
ATOM	302	CG	LEU	35	3.033	-35.402	6.204	1.00	0.00
ATOM	303	CD1	LEU	35	4.133	-34.447	6.682	1.00	0.00
ATOM	304	CD2	LEU	35	1.805	-35.247	7.108	1.00	0.00
ATOM	305	C	LEU	35	4.483	-36.603	3.803	1.00	0.00
ATOM	306	O	LEU	35	5.546	-36.674	4.417	1.00	0.00
ATOM	307	N	LEU	36	3.946	-37.662	3.185	1.00	0.00
ATOM	308	CA	LEU	36	4.594	-38.966	3.185	1.00	0.00
ATOM	309	CB	LEU	36	3.624	-40.054	2.701	1.00	0.00
ATOM	310	CG	LEU	36	2.486	-40.332	3.699	1.00	0.00
ATOM	311	CD1	LEU	36	1.363	-41.101	2.994	1.00	0.00
ATOM	312	CD2	LEU	36	2.971	-41.153	4.902	1.00	0.00
ATOM	313	C	LEU	36	5.863	-38.918	2.327	1.00	0.00
ATOM	314	O	LEU	36	6.891	-39.459	2.732	1.00	0.00
ATOM	315	N	HIS	37	5.804	-38.279	1.151	1.00	0.00
ATOM	316	CA	HIS	37	6.951	-38.170	0.255	1.00	0.00
ATOM	317	CB	HIS	37	6.548	-37.532	-1.081	1.00	0.00
ATOM	318	CG	HIS	37	5.657	-38.391	-1.937	1.00	0.00
ATOM	319	ND1	HIS	37	6.040	-39.641	-2.399	1.00	0.00
ATOM	320	CE1	HIS	37	5.022	-40.126	-3.130	1.00	0.00
ATOM	321	NE2	HIS	37	3.985	-39.288	-3.192	1.00	0.00
ATOM	322	CD2	HIS	37	4.395	-38.193	-2.435	1.00	0.00
ATOM	323	C	HIS	37	8.096	-37.370	0.879	1.00	0.00
ATOM	324	O	HIS	37	9.214	-37.873	0.968	1.00	0.00
ATOM	325	N	TYR	38	7.824	-36.124	1.283	1.00	0.00
ATOM	326	CA	TYR	38	8.798	-35.208	1.860	1.00	0.00
ATOM	327	CB	TYR	38	8.990	-34.012	0.918	1.00	0.00
ATOM	328	CG	TYR	38	9.113	-34.370	-0.556	1.00	0.00
ATOM	329	CD1	TYR	38	8.284	-33.747	-1.511	1.00	0.00
ATOM	330	CE1	TYR	38	8.396	-34.089	-2.870	1.00	0.00
ATOM	331	CZ	TYR	38	9.330	-35.054	-3.279	1.00	0.00
ATOM	332	OH	TYR	38	9.422	-35.387	-4.597	1.00	0.00
ATOM	333	CE2	TYR	38	10.160	-35.675	-2.332	1.00	0.00
ATOM	334	CD2	TYR	38	10.053	-35.332	-0.972	1.00	0.00
ATOM	335	C	TYR	38	8.313	-34.759	3.237	1.00	0.00
ATOM	336	O	TYR	38	7.138	-34.444	3.407	1.00	0.00
ATOM	337	N	LYS	39	9.217	-34.741	4.221	1.00	0.00
ATOM	338	CA	LYS	39	8.901	-34.360	5.589	1.00	0.00
ATOM	339	CB	LYS	39	9.898	-35.021	6.551	1.00	0.00
ATOM	340	CG	LYS	39	9.792	-36.550	6.472	1.00	0.00
ATOM	341	CD	LYS	39	10.711	-37.210	7.505	1.00	0.00
ATOM	342	CE	LYS	39	10.595	-38.737	7.411	1.00	0.00

355				356					
ATOM	343	NZ	LYS	39	11.467	-39.415	8.387	1.00	0.00
ATOM	344	C	LYS	39	8.865	-32.838	5.757	1.00	0.00
ATOM	345	O	LYS	39	9.278	-32.089	4.871	1.00	0.00
ATOM	346	N	PHE	40	8.353	-32.402	6.914	1.00	0.00
ATOM	347	CA	PHE	40	8.202	-31.009	7.301	1.00	0.00
ATOM	348	CB	PHE	40	6.789	-30.531	6.950	1.00	0.00
ATOM	349	CG	PHE	40	6.434	-30.540	5.479	1.00	0.00
ATOM	350	CD1	PHE	40	5.987	-31.710	4.839	1.00	0.00
ATOM	351	CE1	PHE	40	5.668	-31.686	3.471	1.00	0.00
ATOM	352	CZ	PHE	40	5.792	-30.494	2.740	1.00	0.00
ATOM	353	CE2	PHE	40	6.239	-29.330	3.382	1.00	0.00
ATOM	354	CD2	PHE	40	6.557	-29.353	4.745	1.00	0.00
ATOM	355	C	PHE	40	8.423	-30.875	8.811	1.00	0.00
ATOM	356	O	PHE	40	8.615	-31.881	9.495	1.00	0.00
ATOM	357	N	ASN	41	8.379	-29.643	9.333	1.00	0.00
ATOM	358	CA	ASN	41	8.548	-29.373	10.756	1.00	0.00
ATOM	359	CB	ASN	41	8.698	-27.860	10.976	1.00	0.00
ATOM	360	CG	ASN	41	8.926	-27.512	12.447	1.00	0.00
ATOM	361	OD1	ASN	41	8.030	-27.655	13.273	1.00	0.00
ATOM	362	ND2	ASN	41	10.127	-27.043	12.784	1.00	0.00
ATOM	363	C	ASN	41	7.356	-29.953	11.524	1.00	0.00
ATOM	364	O	ASN	41	7.509	-30.896	12.295	1.00	0.00
ATOM	365	N	ASN	42	6.169	-29.383	11.294	1.00	0.00
ATOM	366	CA	ASN	42	4.909	-29.787	11.904	1.00	0.00
ATOM	367	CB	ASN	42	4.868	-29.373	13.384	1.00	0.00
ATOM	368	CG	ASN	42	3.543	-29.746	14.049	1.00	0.00
ATOM	369	OD1	ASN	42	2.844	-30.651	13.599	1.00	0.00
ATOM	370	ND2	ASN	42	3.187	-29.047	15.126	1.00	0.00
ATOM	371	C	ASN	42	3.802	-29.120	11.092	1.00	0.00
ATOM	372	O	ASN	42	3.166	-28.170	11.547	1.00	0.00
ATOM	373	N	ARG	43	3.606	-29.609	9.863	1.00	0.00
ATOM	374	CA	ARG	43	2.642	-29.071	8.919	1.00	0.00
ATOM	375	CB	ARG	43	3.363	-28.715	7.611	1.00	0.00
ATOM	376	CG	ARG	43	4.616	-27.857	7.820	1.00	0.00
ATOM	377	CD	ARG	43	4.328	-26.516	8.487	1.00	0.00
ATOM	378	NE	ARG	43	5.542	-25.703	8.535	1.00	0.00
ATOM	379	CZ	ARG	43	5.596	-24.467	9.050	1.00	0.00
ATOM	380	NH1	ARG	43	6.738	-23.781	8.994	1.00	0.00
ATOM	381	NH2	ARG	43	4.503	-23.935	9.614	1.00	0.00
ATOM	382	C	ARG	43	1.514	-30.068	8.672	1.00	0.00
ATOM	383	O	ARG	43	1.730	-31.120	8.073	1.00	0.00
ATOM	384	N	THR	44	0.307	-29.720	9.125	1.00	0.00
ATOM	385	CA	THR	44	-0.893	-30.518	8.940	1.00	0.00
ATOM	386	CB	THR	44	-1.993	-29.983	9.872	1.00	0.00
ATOM	387	CG2	THR	44	-1.577	-30.072	11.345	1.00	0.00
ATOM	388	OG1	THR	44	-2.280	-28.634	9.544	1.00	0.00
ATOM	389	C	THR	44	-1.349	-30.390	7.486	1.00	0.00
ATOM	390	O	THR	44	-0.865	-29.524	6.759	1.00	0.00
ATOM	391	N	SER	45	-2.301	-31.224	7.060	1.00	0.00
ATOM	392	CA	SER	45	-2.863	-31.166	5.717	1.00	0.00

357

358

ATOM	393	CB	SER	45	-3.914	-32.272	5.578	1.00	0.00
ATOM	394	OG	SER	45	-4.665	-32.373	6.774	1.00	0.00
ATOM	395	C	SER	45	-3.430	-29.761	5.474	1.00	0.00
ATOM	396	O	SER	45	-3.221	-29.174	4.412	1.00	0.00
ATOM	397	N	VAL	46	-4.119	-29.218	6.488	1.00	0.00
ATOM	398	CA	VAL	46	-4.688	-27.878	6.476	1.00	0.00
ATOM	399	CB	VAL	46	-5.381	-27.584	7.823	1.00	0.00
ATOM	400	CG1	VAL	46	-5.925	-26.152	7.869	1.00	0.00
ATOM	401	CG2	VAL	46	-6.545	-28.544	8.093	1.00	0.00
ATOM	402	C	VAL	46	-3.567	-26.869	6.203	1.00	0.00
ATOM	403	O	VAL	46	-3.651	-26.099	5.254	1.00	0.00
ATOM	404	N	MET	47	-2.521	-26.882	7.038	1.00	0.00
ATOM	405	CA	MET	47	-1.372	-25.991	6.936	1.00	0.00
ATOM	406	CB	MET	47	-0.467	-26.277	8.141	1.00	0.00
ATOM	407	CG	MET	47	0.875	-25.551	8.123	1.00	0.00
ATOM	408	SD	MET	47	0.884	-23.811	7.627	1.00	0.00
ATOM	409	CE	MET	47	-0.196	-23.095	8.878	1.00	0.00
ATOM	410	C	MET	47	-0.678	-26.075	5.571	1.00	0.00
ATOM	411	O	MET	47	-0.347	-25.050	4.975	1.00	0.00
ATOM	412	N	LEU	48	-0.465	-27.284	5.052	1.00	0.00
ATOM	413	CA	LEU	48	0.159	-27.482	3.751	1.00	0.00
ATOM	414	CB	LEU	48	0.317	-28.984	3.482	1.00	0.00
ATOM	415	CG	LEU	48	1.468	-29.545	4.327	1.00	0.00
ATOM	416	CD1	LEU	48	1.268	-31.014	4.684	1.00	0.00
ATOM	417	CD2	LEU	48	2.799	-29.427	3.583	1.00	0.00
ATOM	418	C	LEU	48	-0.672	-26.790	2.670	1.00	0.00
ATOM	419	O	LEU	48	-0.127	-26.082	1.818	1.00	0.00
ATOM	420	N	LYS	49	-1.998	-26.973	2.718	1.00	0.00
ATOM	421	CA	LYS	49	-2.895	-26.365	1.780	1.00	0.00
ATOM	422	CB	LYS	49	-4.265	-27.000	2.025	1.00	0.00
ATOM	423	CG	LYS	49	-5.285	-26.651	0.954	1.00	0.00
ATOM	424	CD	LYS	49	-5.672	-25.179	1.088	1.00	0.00
ATOM	425	CE	LYS	49	-7.152	-25.030	0.842	1.00	0.00
ATOM	426	NZ	LYS	49	-7.497	-25.313	-0.567	1.00	0.00
ATOM	427	C	LYS	49	-2.846	-24.842	1.943	1.00	0.00
ATOM	428	O	LYS	49	-2.756	-24.139	0.944	1.00	0.00
ATOM	429	N	ASP	50	-2.900	-24.327	3.180	1.00	0.00
ATOM	430	CA	ASP	50	-2.862	-22.895	3.469	1.00	0.00
ATOM	431	CB	ASP	50	-2.822	-22.621	4.979	1.00	0.00
ATOM	432	CG	ASP	50	-4.092	-23.019	5.707	1.00	0.00
ATOM	433	OD1	ASP	50	-3.977	-23.363	6.902	1.00	0.00
ATOM	434	OD2	ASP	50	-5.169	-22.928	5.076	1.00	0.00
ATOM	435	C	ASP	50	-1.645	-22.245	2.827	1.00	0.00
ATOM	436	O	ASP	50	-1.777	-21.242	2.127	1.00	0.00
ATOM	437	N	ARG	51	-0.461	-22.818	3.066	1.00	0.00
ATOM	438	CA	ARG	51	0.770	-22.289	2.511	1.00	0.00
ATOM	439	CB	ARG	51	1.967	-23.132	2.962	1.00	0.00
ATOM	440	CG	ARG	51	3.305	-22.615	2.409	1.00	0.00
ATOM	441	CD	ARG	51	3.603	-21.187	2.882	1.00	0.00
ATOM	442	NE	ARG	51	4.962	-20.766	2.521	1.00	0.00

359					360				
ATOM	443	CZ	ARG	51	5.368	-19.498	2.338	1.00	0.00
ATOM	444	NH1	ARG	51	4.523	-18.468	2.466	1.00	0.00
ATOM	445	NH2	ARG	51	6.646	-19.270	2.021	1.00	0.00
ATOM	446	C	ARG	51	0.659	-22.209	0.992	1.00	0.00
ATOM	447	O	ARG	51	0.869	-21.140	0.421	1.00	0.00
ATOM	448	N	TRP	52	0.320	-23.328	0.336	1.00	0.00
ATOM	449	CA	TRP	52	0.188	-23.339	-1.115	1.00	0.00
ATOM	450	CB	TRP	52	-0.082	-24.750	-1.630	1.00	0.00
ATOM	451	CG	TRP	52	-0.184	-24.815	-3.123	1.00	0.00
ATOM	452	CD1	TRP	52	-1.307	-25.097	-3.815	1.00	0.00
ATOM	453	NE1	TRP	52	-1.054	-25.066	-5.168	1.00	0.00
ATOM	454	CE2	TRP	52	0.267	-24.749	-5.420	1.00	0.00
ATOM	455	CZ2	TRP	52	1.007	-24.593	-6.601	1.00	0.00
ATOM	456	CH2	TRP	52	2.367	-24.264	-6.522	1.00	0.00
ATOM	457	CZ3	TRP	52	2.970	-24.096	-5.266	1.00	0.00
ATOM	458	CE3	TRP	52	2.223	-24.250	-4.084	1.00	0.00
ATOM	459	CD2	TRP	52	0.851	-24.584	-4.128	1.00	0.00
ATOM	460	C	TRP	52	-0.881	-22.358	-1.614	1.00	0.00
ATOM	461	O	TRP	52	-0.706	-21.746	-2.664	1.00	0.00
ATOM	462	N	ARG	53	-1.983	-22.202	-0.873	1.00	0.00
ATOM	463	CA	ARG	53	-3.077	-21.302	-1.210	1.00	0.00
ATOM	464	CB	ARG	53	-4.240	-21.514	-0.226	1.00	0.00
ATOM	465	CG	ARG	53	-5.373	-20.489	-0.372	1.00	0.00
ATOM	466	CD	ARG	53	-6.678	-20.936	0.313	1.00	0.00
ATOM	467	NE	ARG	53	-6.504	-21.268	1.742	1.00	0.00
ATOM	468	CZ	ARG	53	-7.447	-21.160	2.700	1.00	0.00
ATOM	469	NH1	ARG	53	-8.676	-20.707	2.419	1.00	0.00
ATOM	470	NH2	ARG	53	-7.158	-21.506	3.959	1.00	0.00
ATOM	471	C	ARG	53	-2.545	-19.869	-1.249	1.00	0.00
ATOM	472	O	ARG	53	-2.664	-19.200	-2.272	1.00	0.00
ATOM	473	N	THR	54	-1.941	-19.405	-0.149	1.00	0.00
ATOM	474	CA	THR	54	-1.366	-18.069	-0.058	1.00	0.00
ATOM	475	CB	THR	54	-0.742	-17.886	1.335	1.00	0.00
ATOM	476	CG2	THR	54	-0.215	-16.462	1.541	1.00	0.00
ATOM	477	OG1	THR	54	-1.720	-18.154	2.321	1.00	0.00
ATOM	478	C	THR	54	-0.334	-17.857	-1.172	1.00	0.00
ATOM	479	O	THR	54	-0.361	-16.841	-1.868	1.00	0.00
ATOM	480	N	MET	55	0.574	-18.827	-1.332	1.00	0.00
ATOM	481	CA	MET	55	1.636	-18.807	-2.326	1.00	0.00
ATOM	482	CB	MET	55	2.453	-20.104	-2.217	1.00	0.00
ATOM	483	CG	MET	55	3.353	-20.114	-0.972	1.00	0.00
ATOM	484	SD	MET	55	5.098	-19.719	-1.253	1.00	0.00
ATOM	485	CE	MET	55	4.947	-18.220	-2.255	1.00	0.00
ATOM	486	C	MET	55	1.085	-18.620	-3.739	1.00	0.00
ATOM	487	O	MET	55	1.371	-17.610	-4.384	1.00	0.00
ATOM	488	N	LYS	56	0.307	-19.591	-4.224	1.00	0.00
ATOM	489	CA	LYS	56	-0.266	-19.554	-5.560	1.00	0.00
ATOM	490	CB	LYS	56	-0.971	-20.881	-5.894	1.00	0.00
ATOM	491	CG	LYS	56	-2.439	-20.946	-5.455	1.00	0.00
ATOM	492	CD	LYS	56	-2.989	-22.364	-5.659	1.00	0.00

361					362				
ATOM	493	CE	LYS	56	-4.515	-22.356	-5.816	1.00	0.00
ATOM	494	NZ	LYS	56	-5.043	-23.719	-6.011	1.00	0.00
ATOM	495	C	LYS	56	-1.159	-18.328	-5.779	1.00	0.00
ATOM	496	O	LYS	56	-1.209	-17.796	-6.884	1.00	0.00
ATOM	497	N	LYS	57	-1.870	-17.875	-4.740	1.00	0.00
ATOM	498	CA	LYS	57	-2.756	-16.727	-4.844	1.00	0.00
ATOM	499	CB	LYS	57	-3.623	-16.624	-3.579	1.00	0.00
ATOM	500	CG	LYS	57	-4.553	-15.403	-3.596	1.00	0.00
ATOM	501	CD	LYS	57	-5.438	-15.403	-2.343	1.00	0.00
ATOM	502	CE	LYS	57	-6.341	-14.165	-2.263	1.00	0.00
ATOM	503	NZ	LYS	57	-5.575	-12.917	-2.073	1.00	0.00
ATOM	504	C	LYS	57	-1.990	-15.426	-5.094	1.00	0.00
ATOM	505	O	LYS	57	-2.322	-14.701	-6.029	1.00	0.00
ATOM	506	N	LEU	58	-1.006	-15.107	-4.244	1.00	0.00
ATOM	507	CA	LEU	58	-0.272	-13.848	-4.335	1.00	0.00
ATOM	508	CB	LEU	58	0.069	-13.346	-2.919	1.00	0.00
ATOM	509	CG	LEU	58	-0.190	-11.838	-2.764	1.00	0.00
ATOM	510	CD1	LEU	58	0.091	-11.403	-1.323	1.00	0.00
ATOM	511	CD2	LEU	58	0.644	-10.965	-3.710	1.00	0.00
ATOM	512	C	LEU	58	0.983	-13.905	-5.208	1.00	0.00
ATOM	513	O	LEU	58	1.169	-13.055	-6.075	1.00	0.00
ATOM	514	N	LYS	59	1.867	-14.876	-4.964	1.00	0.00
ATOM	515	CA	LYS	59	3.126	-14.983	-5.693	1.00	0.00
ATOM	516	CB	LYS	59	4.186	-15.679	-4.830	1.00	0.00
ATOM	517	CG	LYS	59	4.330	-15.065	-3.427	1.00	0.00
ATOM	518	CD	LYS	59	4.579	-13.550	-3.467	1.00	0.00
ATOM	519	CE	LYS	59	4.997	-13.002	-2.097	1.00	0.00
ATOM	520	NZ	LYS	59	3.948	-13.159	-1.074	1.00	0.00
ATOM	521	C	LYS	59	2.940	-15.682	-7.035	1.00	0.00
ATOM	522	O	LYS	59	3.622	-15.346	-7.999	1.00	0.00
ATOM	523	N	LEU	60	2.018	-16.647	-7.087	1.00	0.00
ATOM	524	CA	LEU	60	1.693	-17.418	-8.276	1.00	0.00
ATOM	525	CB	LEU	60	1.005	-16.539	-9.335	1.00	0.00
ATOM	526	CG	LEU	60	0.468	-17.321	-10.550	1.00	0.00
ATOM	527	CD1	LEU	60	-0.633	-18.317	-10.167	1.00	0.00
ATOM	528	CD2	LEU	60	-0.092	-16.328	-11.574	1.00	0.00
ATOM	529	C	LEU	60	2.909	-18.183	-8.791	1.00	0.00
ATOM	530	O	LEU	60	3.520	-17.829	-9.799	1.00	0.00
ATOM	531	N	ILE	61	3.245	-19.255	-8.073	1.00	0.00
ATOM	532	CA	ILE	61	4.363	-20.127	-8.399	1.00	0.00
ATOM	533	CB	ILE	61	4.715	-21.015	-7.203	1.00	0.00
ATOM	534	CG2	ILE	61	5.968	-21.853	-7.512	1.00	0.00
ATOM	535	CG1	ILE	61	4.966	-20.130	-5.973	1.00	0.00
ATOM	536	CD1	ILE	61	5.352	-20.997	-4.787	1.00	0.00
ATOM	537	C	ILE	61	4.039	-20.948	-9.649	1.00	0.00
ATOM	538	O	ILE	61	3.529	-22.068	-9.569	1.00	0.00
ATOM	539	N	SER	62	4.366	-20.366	-10.801	1.00	0.00
ATOM	540	CA	SER	62	4.175	-20.954	-12.118	1.00	0.00
ATOM	541	CB	SER	62	4.062	-19.824	-13.152	1.00	0.00
ATOM	542	OG	SER	62	3.682	-20.344	-14.410	1.00	0.00

(183)

特開2003-135087

363

364

ATOM	543	C	SER	62	5.327	-21.930	-12.407	1.00	0.00
ATOM	544	O	SER	62	5.778	-22.637	-11.506	1.00	0.00
ATOM	545	N	SER	63	5.807	-21.974	-13.653	1.00	0.00
ATOM	546	CA	SER	63	6.902	-22.833	-14.080	1.00	0.00
ATOM	547	CB	SER	63	6.355	-24.198	-14.524	1.00	0.00
ATOM	548	OG	SER	63	7.407	-25.095	-14.815	1.00	0.00
ATOM	549	C	SER	63	7.678	-22.112	-15.181	1.00	0.00
ATOM	550	O	SER	63	8.831	-21.744	-14.973	1.00	0.00
ATOM	551	N	ASP	64	7.028	-21.908	-16.334	1.00	0.00
ATOM	552	CA	ASP	64	7.564	-21.220	-17.502	1.00	0.00
ATOM	553	CB	ASP	64	7.461	-19.699	-17.296	1.00	0.00
ATOM	554	CG	ASP	64	6.011	-19.263	-17.123	1.00	0.00
ATOM	555	OD1	ASP	64	5.377	-18.970	-18.158	1.00	0.00
ATOM	556	OD2	ASP	64	5.553	-19.251	-15.959	1.00	0.00
ATOM	557	C	ASP	64	8.972	-21.711	-17.855	1.00	0.00
ATOM	558	O	ASP	64	9.122	-22.822	-18.360	1.00	0.00
ATOM	559	N	SER	65	9.998	-20.892	-17.598	1.00	0.00
ATOM	560	CA	SER	65	11.403	-21.178	-17.850	1.00	0.00
ATOM	561	CB	SER	65	11.727	-21.023	-19.344	1.00	0.00
ATOM	562	OG	SER	65	11.205	-22.103	-20.092	1.00	0.00
ATOM	563	C	SER	65	12.239	-20.206	-17.020	1.00	0.00
ATOM	564	O	SER	65	11.733	-19.168	-16.592	1.00	0.00
ATOM	565	N	GLU	66	13.512	-20.550	-16.804	1.00	0.00
ATOM	566	CA	GLU	66	14.478	-19.764	-16.053	1.00	0.00
ATOM	567	CB	GLU	66	14.860	-20.493	-14.753	1.00	0.00
ATOM	568	CG	GLU	66	15.197	-21.984	-14.930	1.00	0.00
ATOM	569	CD	GLU	66	15.542	-22.649	-13.599	1.00	0.00
ATOM	570	OE1	GLU	66	16.603	-23.307	-13.545	1.00	0.00
ATOM	571	OE2	GLU	66	14.726	-22.506	-12.662	1.00	0.00
ATOM	572	C	GLU	66	15.678	-19.477	-16.957	1.00	0.00
ATOM	573	O	GLU	66	16.155	-20.377	-17.651	1.00	0.00
ATOM	574	N	ASP	67	16.137	-18.218	-16.950	1.00	0.00
ATOM	575	CA	ASP	67	17.255	-17.717	-17.743	1.00	0.00
ATOM	576	CB	ASP	67	18.588	-18.242	-17.185	1.00	0.00
ATOM	577	CG	ASP	67	18.830	-17.771	-15.753	1.00	0.00
ATOM	578	OD1	ASP	67	18.392	-18.491	-14.829	1.00	0.00
ATOM	579	OD2	ASP	67	19.448	-16.693	-15.606	1.00	0.00
ATOM	580	C	ASP	67	17.046	-18.011	-19.235	1.00	0.00
ATOM	581	OT1	ASP	67	15.897	-17.795	-19.681	1.00	0.00
ATOM	582	OT2	ASP	67	18.071	-18.089	-19.947	1.00	0.00
ATOM	583	O5'	GUA	68	-6.527	-39.842	11.135	1.00	0.00
ATOM	584	C5'	GUA	68	-6.220	-40.537	9.946	1.00	0.00
ATOM	585	C4'	GUA	68	-6.660	-39.726	8.725	1.00	0.00
ATOM	586	O4'	GUA	68	-8.028	-39.376	8.805	1.00	0.00
ATOM	587	C1'	GUA	68	-8.259	-38.385	7.826	1.00	0.00
ATOM	588	N9	GUA	68	-9.490	-37.617	8.105	1.00	0.00
ATOM	589	C8	GUA	68	-9.860	-37.022	9.280	1.00	0.00
ATOM	590	N7	GUA	68	-11.017	-36.424	9.238	1.00	0.00
ATOM	591	C5	GUA	68	-11.437	-36.610	7.925	1.00	0.00
ATOM	592	C6	GUA	68	-12.625	-36.173	7.265	1.00	0.00

365					366				
ATOM	593	O6	GUA	68	-13.598	-35.601	7.753	1.00	0.00
ATOM	594	N1	GUA	68	-12.612	-36.461	5.906	1.00	0.00
ATOM	595	C2	GUA	68	-11.601	-37.141	5.258	1.00	0.00
ATOM	596	N2	GUA	68	-11.718	-37.332	3.944	1.00	0.00
ATOM	597	N3	GUA	68	-10.508	-37.599	5.885	1.00	0.00
ATOM	598	C4	GUA	68	-10.483	-37.298	7.211	1.00	0.00
ATOM	599	C3'	GUA	68	-5.927	-38.385	8.573	1.00	0.00
ATOM	600	C2'	GUA	68	-7.034	-37.505	7.979	1.00	0.00
ATOM	601	O3'	GUA	68	-4.798	-38.571	7.729	1.00	0.00
ATOM	602	P	THY	69	-3.895	-37.352	7.154	1.00	0.00
ATOM	603	OP1	THY	69	-3.792	-36.306	8.195	1.00	0.00
ATOM	604	OP2	THY	69	-2.666	-37.925	6.560	1.00	0.00
ATOM	605	O5'	THY	69	-4.792	-36.769	5.948	1.00	0.00
ATOM	606	C5'	THY	69	-5.434	-37.629	5.020	1.00	0.00
ATOM	607	C4'	THY	69	-6.523	-36.872	4.256	1.00	0.00
ATOM	608	O4'	THY	69	-7.592	-36.383	5.029	1.00	0.00
ATOM	609	C1'	THY	69	-8.156	-35.265	4.384	1.00	0.00
ATOM	610	N1	THY	69	-8.999	-34.535	5.367	1.00	0.00
ATOM	611	C6	THY	69	-8.575	-34.414	6.670	1.00	0.00
ATOM	612	C5	THY	69	-9.357	-33.835	7.613	1.00	0.00
ATOM	613	C7	THY	69	-8.769	-33.723	9.009	1.00	0.00
ATOM	614	C4	THY	69	-10.681	-33.339	7.298	1.00	0.00
ATOM	615	O4	THY	69	-11.456	-32.813	8.089	1.00	0.00
ATOM	616	N3	THY	69	-11.041	-33.506	5.971	1.00	0.00
ATOM	617	C2	THY	69	-10.258	-34.074	4.978	1.00	0.00
ATOM	618	O2	THY	69	-10.679	-34.152	3.827	1.00	0.00
ATOM	619	C3'	THY	69	-5.991	-35.659	3.480	1.00	0.00
ATOM	620	C2'	THY	69	-6.886	-34.522	3.986	1.00	0.00
ATOM	621	O3'	THY	69	-6.092	-35.902	2.088	1.00	0.00
ATOM	622	P	THY	70	-5.332	-34.978	1.002	1.00	0.00
ATOM	623	OP1	THY	70	-4.102	-34.446	1.628	1.00	0.00
ATOM	624	OP2	THY	70	-5.224	-35.739	-0.259	1.00	0.00
ATOM	625	O5'	THY	70	-6.358	-33.756	0.781	1.00	0.00
ATOM	626	C5'	THY	70	-7.520	-33.917	-0.012	1.00	0.00
ATOM	627	C4'	THY	70	-8.517	-32.778	0.225	1.00	0.00
ATOM	628	O4'	THY	70	-8.935	-32.733	1.572	1.00	0.00
ATOM	629	C1'	THY	70	-9.605	-31.504	1.747	1.00	0.00
ATOM	630	N1	THY	70	-9.757	-31.162	3.182	1.00	0.00
ATOM	631	C6	THY	70	-8.686	-31.292	4.026	1.00	0.00
ATOM	632	C5	THY	70	-8.786	-30.961	5.335	1.00	0.00
ATOM	633	C7	THY	70	-7.526	-31.159	6.148	1.00	0.00
ATOM	634	C4	THY	70	-10.021	-30.459	5.903	1.00	0.00
ATOM	635	O4	THY	70	-10.189	-30.108	7.067	1.00	0.00
ATOM	636	N3	THY	70	-11.069	-30.409	5.000	1.00	0.00
ATOM	637	C2	THY	70	-10.986	-30.689	3.645	1.00	0.00
ATOM	638	O2	THY	70	-11.952	-30.492	2.912	1.00	0.00
ATOM	639	C3'	THY	70	-7.959	-31.372	-0.026	1.00	0.00
ATOM	640	C2'	THY	70	-8.690	-30.519	1.024	1.00	0.00
ATOM	641	O3'	THY	70	-8.207	-30.986	-1.366	1.00	0.00
ATOM	642	P	ADE	71	-7.817	-29.528	-1.931	1.00	0.00

367				368				
ATOM	643	OP1 ADE	71	-6.614	-29.037	-1.217	1.00	0.00
ATOM	644	OP2 ADE	71	-7.835	-29.565	-3.408	1.00	0.00
ATOM	645	O5' ADE	71	-9.042	-28.626	-1.435	1.00	0.00
ATOM	646	C5' ADE	71	-10.385	-28.854	-1.824	1.00	0.00
ATOM	647	C4' ADE	71	-11.285	-27.844	-1.094	1.00	0.00
ATOM	648	O4' ADE	71	-11.488	-28.204	0.278	1.00	0.00
ATOM	649	C1' ADE	71	-11.356	-27.040	1.073	1.00	0.00
ATOM	650	N9 ADE	71	-11.052	-27.267	2.508	1.00	0.00
ATOM	651	C8 ADE	71	-9.868	-27.699	3.047	1.00	0.00
ATOM	652	N7 ADE	71	-9.796	-27.661	4.342	1.00	0.00
ATOM	653	C5 ADE	71	-11.031	-27.144	4.701	1.00	0.00
ATOM	654	C6 ADE	71	-11.580	-26.815	5.950	1.00	0.00
ATOM	655	N6 ADE	71	-10.904	-27.026	7.077	1.00	0.00
ATOM	656	N1 ADE	71	-12.796	-26.241	5.998	1.00	0.00
ATOM	657	C2 ADE	71	-13.432	-26.009	4.849	1.00	0.00
ATOM	658	N3 ADE	71	-13.029	-26.284	3.609	1.00	0.00
ATOM	659	C4 ADE	71	-11.798	-26.866	3.598	1.00	0.00
ATOM	660	C3' ADE	71	-10.596	-26.470	-1.064	1.00	0.00
ATOM	661	C2' ADE	71	-10.129	-26.461	0.390	1.00	0.00
ATOM	662	O3' ADE	71	-11.497	-25.427	-1.341	1.00	0.00
ATOM	663	P GUA	72	-10.980	-23.932	-1.638	1.00	0.00
ATOM	664	OP1 GUA	72	-11.150	-23.646	-3.077	1.00	0.00
ATOM	665	OP2 GUA	72	-9.649	-23.760	-1.003	1.00	0.00
ATOM	666	O5' GUA	72	-12.054	-23.094	-0.801	1.00	0.00
ATOM	667	C5' GUA	72	-13.438	-23.202	-1.075	1.00	0.00
ATOM	668	C4' GUA	72	-14.220	-22.554	0.065	1.00	0.00
ATOM	669	O4' GUA	72	-13.852	-23.179	1.285	1.00	0.00
ATOM	670	C1' GUA	72	-13.412	-22.227	2.232	1.00	0.00
ATOM	671	N9 GUA	72	-12.307	-22.799	3.044	1.00	0.00
ATOM	672	C8 GUA	72	-11.124	-23.346	2.604	1.00	0.00
ATOM	673	N7 GUA	72	-10.320	-23.734	3.552	1.00	0.00
ATOM	674	C5 GUA	72	-11.030	-23.461	4.715	1.00	0.00
ATOM	675	C6 GUA	72	-10.682	-23.702	6.077	1.00	0.00
ATOM	676	O6 GUA	72	-9.627	-24.148	6.519	1.00	0.00
ATOM	677	N1 GUA	72	-11.708	-23.377	6.957	1.00	0.00
ATOM	678	C2 GUA	72	-12.925	-22.850	6.575	1.00	0.00
ATOM	679	N2 GUA	72	-13.802	-22.569	7.540	1.00	0.00
ATOM	680	N3 GUA	72	-13.240	-22.581	5.298	1.00	0.00
ATOM	681	C4 GUA	72	-12.260	-22.918	4.415	1.00	0.00
ATOM	682	C3' GUA	72	-13.883	-21.065	0.194	1.00	0.00
ATOM	683	C2' GUA	72	-12.924	-21.055	1.383	1.00	0.00
ATOM	684	O3' GUA	72	-15.080	-20.342	0.407	1.00	0.00
ATOM	685	P GUA	73	-15.113	-18.729	0.473	1.00	0.00
ATOM	686	OP1 GUA	73	-13.885	-18.197	-0.160	1.00	0.00
ATOM	687	OP2 GUA	73	-16.442	-18.272	0.011	1.00	0.00
ATOM	688	O5' GUA	73	-15.015	-18.485	2.055	1.00	0.00
ATOM	689	C5' GUA	73	-16.059	-18.905	2.911	1.00	0.00
ATOM	690	C4' GUA	73	-15.642	-18.722	4.367	1.00	0.00
ATOM	691	O4' GUA	73	-14.469	-19.473	4.631	1.00	0.00
ATOM	692	C1' GUA	73	-13.659	-18.739	5.520	1.00	0.00

369				370				
ATOM	693	N9	GUA	73	-12.267	-19.236	5.460	1.00 0.00
ATOM	694	C8	GUA	73	-11.431	-19.299	4.375	1.00 0.00
ATOM	695	N7	GUA	73	-10.285	-19.875	4.607	1.00 0.00
ATOM	696	C5	GUA	73	-10.354	-20.192	5.959	1.00 0.00
ATOM	697	C6	GUA	73	-9.391	-20.819	6.802	1.00 0.00
ATOM	698	O6	GUA	73	-8.271	-21.212	6.488	1.00 0.00
ATOM	699	N1	GUA	73	-9.847	-20.987	8.106	1.00 0.00
ATOM	700	C2	GUA	73	-11.091	-20.590	8.551	1.00 0.00
ATOM	701	N2	GUA	73	-11.390	-20.797	9.833	1.00 0.00
ATOM	702	N3	GUA	73	-11.989	-19.980	7.769	1.00 0.00
ATOM	703	C4	GUA	73	-11.563	-19.811	6.488	1.00 0.00
ATOM	704	C3'	GUA	73	-15.315	-17.262	4.725	1.00 0.00
ATOM	705	C2'	GUA	73	-13.804	-17.330	4.954	1.00 0.00
ATOM	706	O3'	GUA	73	-16.056	-16.934	5.885	1.00 0.00
ATOM	707	P	GUA	74	-16.000	-15.487	6.593	1.00 0.00
ATOM	708	OP1	GUA	74	-15.072	-14.610	5.846	1.00 0.00
ATOM	709	OP2	GUA	74	-17.386	-15.042	6.858	1.00 0.00
ATOM	710	O5'	GUA	74	-15.314	-15.876	7.994	1.00 0.00
ATOM	711	C5'	GUA	74	-15.984	-16.721	8.910	1.00 0.00
ATOM	712	C4'	GUA	74	-15.099	-17.015	10.121	1.00 0.00
ATOM	713	O4'	GUA	74	-13.886	-17.612	9.689	1.00 0.00
ATOM	714	C1'	GUA	74	-12.789	-16.983	10.316	1.00 0.00
ATOM	715	N9	GUA	74	-11.601	-17.078	9.436	1.00 0.00
ATOM	716	C8	GUA	74	-11.482	-16.686	8.126	1.00 0.00
ATOM	717	N7	GUA	74	-10.331	-16.966	7.583	1.00 0.00
ATOM	718	C5	GUA	74	-9.628	-17.593	8.605	1.00 0.00
ATOM	719	C6	GUA	74	-8.320	-18.165	8.604	1.00 0.00
ATOM	720	O6	GUA	74	-7.532	-18.246	7.665	1.00 0.00
ATOM	721	N1	GUA	74	-7.970	-18.690	9.843	1.00 0.00
ATOM	722	C2	GUA	74	-8.796	-18.705	10.947	1.00 0.00
ATOM	723	N2	GUA	74	-8.305	-19.188	12.089	1.00 0.00
ATOM	724	N3	GUA	74	-10.034	-18.193	10.942	1.00 0.00
ATOM	725	C4	GUA	74	-10.392	-17.655	9.747	1.00 0.00
ATOM	726	C3'	GUA	74	-14.719	-15.743	10.893	1.00 0.00
ATOM	727	C2'	GUA	74	-13.267	-15.542	10.465	1.00 0.00
ATOM	728	O3'	GUA	74	-14.882	-15.996	12.277	1.00 0.00
ATOM	729	P	THY	75	-14.583	-14.885	13.409	1.00 0.00
ATOM	730	OP1	THY	75	-15.506	-15.114	14.542	1.00 0.00
ATOM	731	OP2	THY	75	-14.512	-13.552	12.771	1.00 0.00
ATOM	732	O5'	THY	75	-13.102	-15.305	13.870	1.00 0.00
ATOM	733	C5'	THY	75	-12.872	-16.545	14.513	1.00 0.00
ATOM	734	C4'	THY	75	-11.378	-16.725	14.779	1.00 0.00
ATOM	735	O4'	THY	75	-10.658	-16.681	13.562	1.00 0.00
ATOM	736	C1'	THY	75	-9.389	-16.118	13.807	1.00 0.00
ATOM	737	N1	THY	75	-8.772	-15.663	12.530	1.00 0.00
ATOM	738	C6	THY	75	-9.504	-14.924	11.627	1.00 0.00
ATOM	739	C5	THY	75	-9.003	-14.609	10.404	1.00 0.00
ATOM	740	C7	THY	75	-9.897	-13.780	9.503	1.00 0.00
ATOM	741	C4	THY	75	-7.685	-15.045	9.990	1.00 0.00
ATOM	742	O4	THY	75	-7.167	-14.857	8.892	1.00 0.00

371					372				
ATOM	743	N3	THY	75	-7.002	-15.749	10.964	1.00	0.00
ATOM	744	C2	THY	75	-7.478	-16.082	12.220	1.00	0.00
ATOM	745	O2	THY	75	-6.765	-16.722	12.988	1.00	0.00
ATOM	746	C3'	THY	75	-10.788	-15.615	15.662	1.00	0.00
ATOM	747	C2'	THY	75	-9.762	-14.961	14.730	1.00	0.00
ATOM	748	O3'	THY	75	-10.218	-16.220	16.809	1.00	0.00
ATOM	749	P	THY	76	-9.511	-15.370	17.983	1.00	0.00
ATOM	750	OP1	THY	76	-9.959	-13.962	17.895	1.00	0.00
ATOM	751	OP2	THY	76	-9.658	-16.116	19.251	1.00	0.00
ATOM	752	O5'	THY	76	-7.969	-15.439	17.531	1.00	0.00
ATOM	753	C5'	THY	76	-7.279	-16.672	17.517	1.00	0.00
ATOM	754	C4'	THY	76	-5.860	-16.480	16.980	1.00	0.00
ATOM	755	O4'	THY	76	-5.898	-16.006	15.645	1.00	0.00
ATOM	756	C1'	THY	76	-4.836	-15.096	15.468	1.00	0.00
ATOM	757	N1	THY	76	-5.024	-14.301	14.220	1.00	0.00
ATOM	758	C6	THY	76	-6.160	-13.547	14.030	1.00	0.00
ATOM	759	C5	THY	76	-6.403	-12.926	12.847	1.00	0.00
ATOM	760	C7	THY	76	-7.683	-12.112	12.774	1.00	0.00
ATOM	761	C4	THY	76	-5.489	-13.035	11.728	1.00	0.00
ATOM	762	O4	THY	76	-5.651	-12.550	10.610	1.00	0.00
ATOM	763	N3	THY	76	-4.355	-13.774	12.011	1.00	0.00
ATOM	764	C2	THY	76	-4.070	-14.416	13.206	1.00	0.00
ATOM	765	O2	THY	76	-3.019	-15.047	13.323	1.00	0.00
ATOM	766	C3'	THY	76	-5.055	-15.437	17.772	1.00	0.00
ATOM	767	C2'	THY	76	-4.951	-14.292	16.761	1.00	0.00
ATOM	768	O3'	THY	76	-3.790	-15.997	18.079	1.00	0.00
ATOM	769	P	ADE	77	-2.756	-15.307	19.106	1.00	0.00
ATOM	770	OP1	ADE	77	-3.188	-13.918	19.373	1.00	0.00
ATOM	771	OP2	ADE	77	-2.522	-16.236	20.233	1.00	0.00
ATOM	772	O5'	ADE	77	-1.420	-15.241	18.216	1.00	0.00
ATOM	773	C5'	ADE	77	-0.716	-16.411	17.856	1.00	0.00
ATOM	774	C4'	ADE	77	0.514	-16.064	17.013	1.00	0.00
ATOM	775	O4'	ADE	77	0.111	-15.402	15.826	1.00	0.00
ATOM	776	C1'	ADE	77	0.673	-14.106	15.748	1.00	0.00
ATOM	777	N9	ADE	77	-0.324	-13.202	15.123	1.00	0.00
ATOM	778	C8	ADE	77	-1.565	-12.853	15.598	1.00	0.00
ATOM	779	N7	ADE	77	-2.319	-12.229	14.735	1.00	0.00
ATOM	780	C5	ADE	77	-1.516	-12.140	13.606	1.00	0.00
ATOM	781	C6	ADE	77	-1.733	-11.614	12.316	1.00	0.00
ATOM	782	N6	ADE	77	-2.879	-11.031	11.967	1.00	0.00
ATOM	783	N1	ADE	77	-0.751	-11.717	11.399	1.00	0.00
ATOM	784	C2	ADE	77	0.384	-12.313	11.748	1.00	0.00
ATOM	785	N3	ADE	77	0.700	-12.877	12.913	1.00	0.00
ATOM	786	C4	ADE	77	-0.295	-12.722	13.831	1.00	0.00
ATOM	787	C3'	ADE	77	1.500	-15.121	17.714	1.00	0.00
ATOM	788	C2'	ADE	77	1.030	-13.757	17.192	1.00	0.00
ATOM	789	O3'	ADE	77	2.805	-15.484	17.287	1.00	0.00
ATOM	790	P	GUA	78	4.144	-14.995	18.043	1.00	0.00
ATOM	791	OP1	GUA	78	3.933	-15.054	19.507	1.00	0.00
ATOM	792	OP2	GUA	78	5.308	-15.697	17.445	1.00	0.00

373

374

ATOM	793	O5'	GUA	78	4.203	-13.447	17.624	1.00	0.00
ATOM	794	C5'	GUA	78	4.599	-13.036	16.332	1.00	0.00
ATOM	795	C4'	GUA	78	4.339	-11.546	16.110	1.00	0.00
ATOM	796	O4'	GUA	78	3.019	-11.326	15.674	1.00	0.00
ATOM	797	C1'	GUA	78	2.806	-9.942	15.790	1.00	0.00
ATOM	798	N9	GUA	78	1.382	-9.638	15.553	1.00	0.00
ATOM	799	C8	GUA	78	0.282	-10.025	16.275	1.00	0.00
ATOM	800	N7	GUA	78	-0.854	-9.709	15.719	1.00	0.00
ATOM	801	C5	GUA	78	-0.488	-9.080	14.535	1.00	0.00
ATOM	802	C6	GUA	78	-1.292	-8.541	13.486	1.00	0.00
ATOM	803	O6	GUA	78	-2.518	-8.493	13.412	1.00	0.00
ATOM	804	N1	GUA	78	-0.528	-8.004	12.454	1.00	0.00
ATOM	805	C2	GUA	78	0.852	-7.956	12.451	1.00	0.00
ATOM	806	N2	GUA	78	1.460	-7.334	11.441	1.00	0.00
ATOM	807	N3	GUA	78	1.607	-8.466	13.431	1.00	0.00
ATOM	808	C4	GUA	78	0.880	-9.018	14.436	1.00	0.00
ATOM	809	C3'	GUA	78	4.478	-10.636	17.344	1.00	0.00
ATOM	810	C2'	GUA	78	3.273	-9.690	17.220	1.00	0.00
ATOM	811	O3'	GUA	78	5.747	-10.004	17.333	1.00	0.00
ATOM	812	P	GUA	79	6.189	-8.952	18.473	1.00	0.00
ATOM	813	OP1	GUA	79	5.381	-9.230	19.686	1.00	0.00
ATOM	814	OP2	GUA	79	7.665	-8.957	18.573	1.00	0.00
ATOM	815	O5'	GUA	79	5.715	-7.558	17.831	1.00	0.00
ATOM	816	C5'	GUA	79	6.302	-7.084	16.633	1.00	0.00
ATOM	817	C4'	GUA	79	5.397	-6.052	15.961	1.00	0.00
ATOM	818	O4'	GUA	79	4.078	-6.543	15.802	1.00	0.00
ATOM	819	C1'	GUA	79	3.229	-5.426	15.684	1.00	0.00
ATOM	820	N9	GUA	79	1.812	-5.804	15.883	1.00	0.00
ATOM	821	C8	GUA	79	1.258	-6.496	16.929	1.00	0.00
ATOM	822	N7	GUA	79	-0.035	-6.632	16.854	1.00	0.00
ATOM	823	C5	GUA	79	-0.368	-6.007	15.658	1.00	0.00
ATOM	824	C6	GUA	79	-1.636	-5.861	15.021	1.00	0.00
ATOM	825	O6	GUA	79	-2.736	-6.230	15.424	1.00	0.00
ATOM	826	N1	GUA	79	-1.543	-5.236	13.781	1.00	0.00
ATOM	827	C2	GUA	79	-0.363	-4.784	13.225	1.00	0.00
ATOM	828	N2	GUA	79	-0.424	-4.222	12.016	1.00	0.00
ATOM	829	N3	GUA	79	0.825	-4.894	13.833	1.00	0.00
ATOM	830	C4	GUA	79	0.760	-5.519	15.041	1.00	0.00
ATOM	831	C3'	GUA	79	5.261	-4.735	16.740	1.00	0.00
ATOM	832	C2'	GUA	79	3.741	-4.554	16.828	1.00	0.00
ATOM	833	O3'	GUA	79	5.924	-3.728	15.996	1.00	0.00
ATOM	834	P	GUA	80	5.995	-2.190	16.473	1.00	0.00
ATOM	835	OP1	GUA	80	5.747	-2.128	17.931	1.00	0.00
ATOM	836	OP2	GUA	80	7.219	-1.583	15.903	1.00	0.00
ATOM	837	O5'	GUA	80	4.723	-1.565	15.712	1.00	0.00
ATOM	838	C5'	GUA	80	4.694	-1.491	14.299	1.00	0.00
ATOM	839	C4'	GUA	80	3.330	-0.985	13.826	1.00	0.00
ATOM	840	O4'	GUA	80	2.315	-1.866	14.271	1.00	0.00
ATOM	841	C1'	GUA	80	1.156	-1.108	14.520	1.00	0.00
ATOM	842	N9	GUA	80	0.196	-1.856	15.360	1.00	0.00

375				376					
ATOM	843	C8	GUA	80	0.399	-2.434	16.587	1.00	0.00
ATOM	844	N7	GUA	80	-0.664	-2.988	17.098	1.00	0.00
ATOM	845	C5	GUA	80	-1.646	-2.776	16.137	1.00	0.00
ATOM	846	C6	GUA	80	-3.020	-3.168	16.117	1.00	0.00
ATOM	847	O6	GUA	80	-3.654	-3.771	16.981	1.00	0.00
ATOM	848	N1	GUA	80	-3.653	-2.806	14.935	1.00	0.00
ATOM	849	C2	GUA	80	-3.053	-2.131	13.893	1.00	0.00
ATOM	850	N2	GUA	80	-3.804	-1.851	12.826	1.00	0.00
ATOM	851	N3	GUA	80	-1.771	-1.741	13.916	1.00	0.00
ATOM	852	C4	GUA	80	-1.123	-2.099	15.060	1.00	0.00
ATOM	853	C3'	GUA	80	2.967	0.396	14.398	1.00	0.00
ATOM	854	C2'	GUA	80	1.736	0.100	15.250	1.00	0.00
ATOM	855	O3'	GUA	80	2.633	1.299	13.362	1.00	0.00
ATOM	856	O5'	CYT	81	-13.164	-3.225	13.508	1.00	0.00
ATOM	857	C5'	CYT	81	-12.818	-1.987	12.925	1.00	0.00
ATOM	858	C4'	CYT	81	-11.337	-1.972	12.537	1.00	0.00
ATOM	859	O4'	CYT	81	-10.517	-2.295	13.639	1.00	0.00
ATOM	860	C1'	CYT	81	-9.255	-2.643	13.114	1.00	0.00
ATOM	861	N1	CYT	81	-8.430	-3.372	14.107	1.00	0.00
ATOM	862	C6	CYT	81	-8.986	-4.374	14.863	1.00	0.00
ATOM	863	C5	CYT	81	-8.240	-5.115	15.713	1.00	0.00
ATOM	864	C4	CYT	81	-6.845	-4.789	15.807	1.00	0.00
ATOM	865	N4	CYT	81	-6.044	-5.439	16.654	1.00	0.00
ATOM	866	N3	CYT	81	-6.308	-3.829	15.045	1.00	0.00
ATOM	867	C2	CYT	81	-7.064	-3.112	14.170	1.00	0.00
ATOM	868	O2	CYT	81	-6.531	-2.266	13.455	1.00	0.00
ATOM	869	C3'	CYT	81	-10.962	-3.009	11.468	1.00	0.00
ATOM	870	C2'	CYT	81	-9.628	-3.566	11.963	1.00	0.00
ATOM	871	O3'	CYT	81	-10.868	-2.370	10.207	1.00	0.00
ATOM	872	P	CYT	82	-10.510	-3.174	8.853	1.00	0.00
ATOM	873	OP1	CYT	82	-11.131	-2.456	7.719	1.00	0.00
ATOM	874	OP2	CYT	82	-10.813	-4.604	9.074	1.00	0.00
ATOM	875	O5'	CYT	82	-8.904	-3.019	8.739	1.00	0.00
ATOM	876	C5'	CYT	82	-8.296	-1.779	8.425	1.00	0.00
ATOM	877	C4'	CYT	82	-6.790	-1.946	8.175	1.00	0.00
ATOM	878	O4'	CYT	82	-6.117	-2.351	9.351	1.00	0.00
ATOM	879	C1'	CYT	82	-5.174	-3.367	9.070	1.00	0.00
ATOM	880	N1	CYT	82	-5.104	-4.228	10.277	1.00	0.00
ATOM	881	C6	CYT	82	-6.268	-4.739	10.784	1.00	0.00
ATOM	882	C5	CYT	82	-6.292	-5.492	11.900	1.00	0.00
ATOM	883	C4	CYT	82	-5.034	-5.727	12.550	1.00	0.00
ATOM	884	N4	CYT	82	-4.979	-6.516	13.624	1.00	0.00
ATOM	885	N3	CYT	82	-3.895	-5.199	12.074	1.00	0.00
ATOM	886	C2	CYT	82	-3.892	-4.444	10.934	1.00	0.00
ATOM	887	O2	CYT	82	-2.836	-3.979	10.509	1.00	0.00
ATOM	888	C3'	CYT	82	-6.493	-3.010	7.111	1.00	0.00
ATOM	889	C2'	CYT	82	-5.785	-4.117	7.887	1.00	0.00
ATOM	890	O3'	CYT	82	-5.698	-2.411	6.099	1.00	0.00
ATOM	891	P	CYT	83	-5.490	-3.079	4.644	1.00	0.00
ATOM	892	OP1	CYT	83	-6.620	-3.995	4.377	1.00	0.00

377					378				
ATOM	893	OP2	CYT	83	-5.175	-1.998	3.683	1.00	0.00
ATOM	894	O5'	CYT	83	-4.167	-3.963	4.863	1.00	0.00
ATOM	895	C5'	CYT	83	-2.874	-3.430	4.632	1.00	0.00
ATOM	896	C4'	CYT	83	-1.813	-4.435	5.088	1.00	0.00
ATOM	897	O4'	CYT	83	-1.950	-4.673	6.471	1.00	0.00
ATOM	898	C1'	CYT	83	-1.282	-5.872	6.802	1.00	0.00
ATOM	899	N1	CYT	83	-2.029	-6.541	7.899	1.00	0.00
ATOM	900	C6	CYT	83	-3.377	-6.731	7.771	1.00	0.00
ATOM	901	C5	CYT	83	-4.120	-7.269	8.765	1.00	0.00
ATOM	902	C4	CYT	83	-3.419	-7.666	9.952	1.00	0.00
ATOM	903	N4	CYT	83	-4.080	-8.239	10.959	1.00	0.00
ATOM	904	N3	CYT	83	-2.097	-7.477	10.079	1.00	0.00
ATOM	905	C2	CYT	83	-1.372	-6.912	9.071	1.00	0.00
ATOM	906	O2	CYT	83	-0.162	-6.744	9.203	1.00	0.00
ATOM	907	C3'	CYT	83	-1.986	-5.824	4.469	1.00	0.00
ATOM	908	C2'	CYT	83	-1.318	-6.710	5.520	1.00	0.00
ATOM	909	O3'	CYT	83	-1.370	-5.892	3.192	1.00	0.00
ATOM	910	P	THY	84	-1.517	-7.185	2.227	1.00	0.00
ATOM	911	OP1	THY	84	-1.044	-6.810	0.876	1.00	0.00
ATOM	912	OP2	THY	84	-2.872	-7.754	2.397	1.00	0.00
ATOM	913	O5'	THY	84	-0.467	-8.236	2.842	1.00	0.00
ATOM	914	C5'	THY	84	0.926	-7.992	2.808	1.00	0.00
ATOM	915	C4'	THY	84	1.652	-9.114	3.552	1.00	0.00
ATOM	916	O4'	THY	84	1.095	-9.242	4.851	1.00	0.00
ATOM	917	C1'	THY	84	0.908	-10.602	5.174	1.00	0.00
ATOM	918	N1	THY	84	-0.175	-10.715	6.199	1.00	0.00
ATOM	919	C6	THY	84	-1.461	-10.321	5.900	1.00	0.00
ATOM	920	C5	THY	84	-2.437	-10.319	6.840	1.00	0.00
ATOM	921	C7	THY	84	-3.823	-9.925	6.359	1.00	0.00
ATOM	922	C4	THY	84	-2.171	-10.693	8.213	1.00	0.00
ATOM	923	O4	THY	84	-2.989	-10.683	9.126	1.00	0.00
ATOM	924	N3	THY	84	-0.865	-11.093	8.443	1.00	0.00
ATOM	925	C2	THY	84	0.153	-11.128	7.495	1.00	0.00
ATOM	926	O2	THY	84	1.275	-11.512	7.817	1.00	0.00
ATOM	927	C3'	THY	84	1.496	-10.479	2.864	1.00	0.00
ATOM	928	C2'	THY	84	0.555	-11.221	3.816	1.00	0.00
ATOM	929	O3'	THY	84	2.779	-11.073	2.736	1.00	0.00
ATOM	930	P	ADE	85	3.021	-12.482	1.986	1.00	0.00
ATOM	931	OP1	ADE	85	4.427	-12.544	1.525	1.00	0.00
ATOM	932	OP2	ADE	85	1.959	-12.695	0.980	1.00	0.00
ATOM	933	O5'	ADE	85	2.832	-13.562	3.151	1.00	0.00
ATOM	934	C5'	ADE	85	3.727	-13.613	4.243	1.00	0.00
ATOM	935	C4'	ADE	85	3.069	-14.395	5.375	1.00	0.00
ATOM	936	O4'	ADE	85	1.819	-13.828	5.700	1.00	0.00
ATOM	937	C1'	ADE	85	1.126	-14.787	6.457	1.00	0.00
ATOM	938	N9	ADE	85	-0.313	-14.450	6.525	1.00	0.00
ATOM	939	C8	ADE	85	-1.173	-14.146	5.499	1.00	0.00
ATOM	940	N7	ADE	85	-2.383	-13.842	5.884	1.00	0.00
ATOM	941	C5	ADE	85	-2.323	-13.960	7.268	1.00	0.00
ATOM	942	C6	ADE	85	-3.268	-13.762	8.296	1.00	0.00

379

380

ATOM	943	N6	ADE	85	-4.529	-13.383	8.075	1.00	0.00
ATOM	944	N1	ADE	85	-2.875	-13.954	9.567	1.00	0.00
ATOM	945	C2	ADE	85	-1.622	-14.315	9.806	1.00	0.00
ATOM	946	N3	ADE	85	-0.643	-14.543	8.943	1.00	0.00
ATOM	947	C4	ADE	85	-1.066	-14.340	7.667	1.00	0.00
ATOM	948	C3'	ADE	85	2.756	-15.855	5.021	1.00	0.00
ATOM	949	C2'	ADE	85	1.370	-16.060	5.652	1.00	0.00
ATOM	950	O3'	ADE	85	3.794	-16.668	5.542	1.00	0.00
ATOM	951	P	ADE	86	3.719	-18.277	5.584	1.00	0.00
ATOM	952	OP1	ADE	86	5.102	-18.800	5.612	1.00	0.00
ATOM	953	OP2	ADE	86	2.790	-18.722	4.517	1.00	0.00
ATOM	954	O5'	ADE	86	3.049	-18.535	7.022	1.00	0.00
ATOM	955	C5'	ADE	86	3.661	-18.015	8.187	1.00	0.00
ATOM	956	C4'	ADE	86	2.728	-18.116	9.392	1.00	0.00
ATOM	957	O4'	ADE	86	1.489	-17.475	9.122	1.00	0.00
ATOM	958	C1'	ADE	86	0.433	-18.277	9.610	1.00	0.00
ATOM	959	N9	ADE	86	-0.833	-17.983	8.902	1.00	0.00
ATOM	960	C8	ADE	86	-1.080	-17.981	7.551	1.00	0.00
ATOM	961	N7	ADE	86	-2.278	-17.582	7.222	1.00	0.00
ATOM	962	C5	ADE	86	-2.883	-17.336	8.448	1.00	0.00
ATOM	963	C6	ADE	86	-4.175	-16.907	8.809	1.00	0.00
ATOM	964	N6	ADE	86	-5.104	-16.588	7.907	1.00	0.00
ATOM	965	N1	ADE	86	-4.481	-16.818	10.114	1.00	0.00
ATOM	966	C2	ADE	86	-3.555	-17.123	11.017	1.00	0.00
ATOM	967	N3	ADE	86	-2.299	-17.503	10.813	1.00	0.00
ATOM	968	C4	ADE	86	-2.021	-17.601	9.482	1.00	0.00
ATOM	969	C3'	ADE	86	2.395	-19.560	9.775	1.00	0.00
ATOM	970	C2'	ADE	86	0.940	-19.685	9.334	1.00	0.00
ATOM	971	O3'	ADE	86	2.544	-19.681	11.179	1.00	0.00
ATOM	972	P	CYT	87	2.601	-21.110	11.919	1.00	0.00
ATOM	973	OP1	CYT	87	3.305	-20.900	13.204	1.00	0.00
ATOM	974	OP2	CYT	87	3.103	-22.117	10.958	1.00	0.00
ATOM	975	O5'	CYT	87	1.052	-21.411	12.243	1.00	0.00
ATOM	976	C5'	CYT	87	0.492	-20.965	13.461	1.00	0.00
ATOM	977	C4'	CYT	87	-1.039	-21.013	13.456	1.00	0.00
ATOM	978	O4'	CYT	87	-1.613	-20.391	12.324	1.00	0.00
ATOM	979	C1'	CYT	87	-2.964	-20.811	12.266	1.00	0.00
ATOM	980	N1	CYT	87	-3.560	-20.576	10.924	1.00	0.00
ATOM	981	C6	CYT	87	-2.820	-20.828	9.802	1.00	0.00
ATOM	982	C5	CYT	87	-3.313	-20.640	8.558	1.00	0.00
ATOM	983	C4	CYT	87	-4.668	-20.185	8.463	1.00	0.00
ATOM	984	N4	CYT	87	-5.223	-19.955	7.272	1.00	0.00
ATOM	985	N3	CYT	87	-5.394	-19.941	9.563	1.00	0.00
ATOM	986	C2	CYT	87	-4.878	-20.136	10.810	1.00	0.00
ATOM	987	O2	CYT	87	-5.575	-19.920	11.797	1.00	0.00
ATOM	988	C3'	CYT	87	-1.617	-22.431	13.467	1.00	0.00
ATOM	989	C2'	CYT	87	-2.833	-22.304	12.543	1.00	0.00
ATOM	990	O3'	CYT	87	-1.929	-22.757	14.811	1.00	0.00
ATOM	991	P	CYT	88	-2.646	-24.137	15.243	1.00	0.00
ATOM	992	OP1	CYT	88	-2.323	-25.171	14.235	1.00	0.00

381				382			
ATOM	993	OP2	CYT	88	-2.356	-24.381	16.673 1.00 0.00
ATOM	994	O5'	CYT	88	-4.208	-23.764	15.104 1.00 0.00
ATOM	995	C5'	CYT	88	-4.794	-22.728	15.873 1.00 0.00
ATOM	996	C4'	CYT	88	-6.216	-22.450	15.377 1.00 0.00
ATOM	997	O4'	CYT	88	-6.192	-22.120	14.005 1.00 0.00
ATOM	998	C1'	CYT	88	-7.424	-22.472	13.413 1.00 0.00
ATOM	999	N1	CYT	88	-7.223	-22.714	11.962 1.00 0.00
ATOM	1000	C6	CYT	88	-6.078	-23.333	11.536 1.00 0.00
ATOM	1001	C5	CYT	88	-5.761	-23.421	10.228 1.00 0.00
ATOM	1002	C4	CYT	88	-6.709	-22.873	9.300 1.00 0.00
ATOM	1003	N4	CYT	88	-6.467	-22.905	7.992 1.00 0.00
ATOM	1004	N3	CYT	88	-7.875	-22.359	9.715 1.00 0.00
ATOM	1005	C2	CYT	88	-8.175	-22.282	11.043 1.00 0.00
ATOM	1006	O2	CYT	88	-9.270	-21.859	11.403 1.00 0.00
ATOM	1007	C3'	CYT	88	-7.142	-23.667	15.498 1.00 0.00
ATOM	1008	C2'	CYT	88	-7.783	-23.773	14.115 1.00 0.00
ATOM	1009	O3'	CYT	88	-8.069	-23.427	16.543 1.00 0.00
ATOM	1010	P	CYT	89	-9.226	-24.478	16.952 1.00 0.00
ATOM	1011	OP1	CYT	89	-9.588	-24.236	18.366 1.00 0.00
ATOM	1012	OP2	CYT	89	-8.810	-25.831	16.518 1.00 0.00
ATOM	1013	O5'	CYT	89	-10.465	-24.017	16.028 1.00 0.00
ATOM	1014	C5'	CYT	89	-11.078	-22.750	16.189 1.00 0.00
ATOM	1015	C4'	CYT	89	-12.193	-22.568	15.152 1.00 0.00
ATOM	1016	O4'	CYT	89	-11.654	-22.666	13.849 1.00 0.00
ATOM	1017	C1'	CYT	89	-12.560	-23.317	12.981 1.00 0.00
ATOM	1018	N1	CYT	89	-11.762	-24.013	11.936 1.00 0.00
ATOM	1019	C6	CYT	89	-10.668	-24.743	12.319 1.00 0.00
ATOM	1020	C5	CYT	89	-9.776	-25.217	11.427 1.00 0.00
ATOM	1021	C4	CYT	89	-10.040	-24.939	10.045 1.00 0.00
ATOM	1022	N4	CYT	89	-9.194	-25.371	9.110 1.00 0.00
ATOM	1023	N3	CYT	89	-11.140	-24.273	9.662 1.00 0.00
ATOM	1024	C2	CYT	89	-12.032	-23.803	10.584 1.00 0.00
ATOM	1025	O2	CYT	89	-13.049	-23.223	10.213 1.00 0.00
ATOM	1026	C3'	CYT	89	-13.277	-23.649	15.262 1.00 0.00
ATOM	1027	C2'	CYT	89	-13.263	-24.320	13.890 1.00 0.00
ATOM	1028	O3'	CYT	89	-14.513	-23.031	15.585 1.00 0.00
ATOM	1029	P	THY	90	-15.872	-23.868	15.861 1.00 0.00
ATOM	1030	OP1	THY	90	-16.775	-23.030	16.680 1.00 0.00
ATOM	1031	OP2	THY	90	-15.503	-25.224	16.324 1.00 0.00
ATOM	1032	O5'	THY	90	-16.509	-23.997	14.385 1.00 0.00
ATOM	1033	C5'	THY	90	-16.991	-22.861	13.693 1.00 0.00
ATOM	1034	C4'	THY	90	-17.298	-23.216	12.235 1.00 0.00
ATOM	1035	O4'	THY	90	-16.138	-23.733	11.613 1.00 0.00
ATOM	1036	C1'	THY	90	-16.522	-24.666	10.629 1.00 0.00
ATOM	1037	N1	THY	90	-15.356	-25.537	10.322 1.00 0.00
ATOM	1038	C6	THY	90	-14.735	-26.218	11.341 1.00 0.00
ATOM	1039	C5	THY	90	-13.605	-26.929	11.128 1.00 0.00
ATOM	1040	C7	THY	90	-13.031	-27.670	12.322 1.00 0.00
ATOM	1041	C4	THY	90	-12.985	-26.982	9.824 1.00 0.00
ATOM	1042	O4	THY	90	-11.938	-27.570	9.573 1.00 0.00

383

384

ATOM	1043	N3	THY	90	-13.669	-26.285	8.836	1.00	0.00
ATOM	1044	C2	THY	90	-14.854	-25.584	9.019	1.00	0.00
ATOM	1045	O2	THY	90	-15.416	-25.059	8.061	1.00	0.00
ATOM	1046	C3'	THY	90	-18.385	-24.293	12.077	1.00	0.00
ATOM	1047	C2'	THY	90	-17.653	-25.416	11.335	1.00	0.00
ATOM	1048	O3'	THY	90	-19.464	-23.740	11.341	1.00	0.00
ATOM	1049	P	ADE	91	-20.846	-24.538	11.085	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.889	-23.549	10.733	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.070	-25.475	12.207	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.503	-25.396	9.767	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.367	-24.774	8.505	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.774	-25.747	7.482	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.465	-26.144	7.829	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.168	-27.277	7.045	1.00	0.00
ATOM	1057	N9	ADE	91	-16.991	-27.984	7.587	1.00	0.00
ATOM	1058	C8	ADE	91	-16.745	-28.319	8.892	1.00	0.00
ATOM	1059	N7	ADE	91	-15.587	-28.888	9.090	1.00	0.00
ATOM	1060	C5	ADE	91	-15.039	-28.958	7.812	1.00	0.00
ATOM	1061	C6	ADE	91	-13.817	-29.452	7.312	1.00	0.00
ATOM	1062	N6	ADE	91	-12.870	-29.964	8.101	1.00	0.00
ATOM	1063	N1	ADE	91	-13.606	-29.426	5.984	1.00	0.00
ATOM	1064	C2	ADE	91	-14.548	-28.924	5.190	1.00	0.00
ATOM	1065	N3	ADE	91	-15.717	-28.395	5.535	1.00	0.00
ATOM	1066	C4	ADE	91	-15.905	-28.440	6.882	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.548	-27.065	7.341	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.431	-28.108	7.217	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.392	-26.964	6.204	1.00	0.00
ATOM	1070	P	ADE	92	-22.313	-28.180	5.673	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.415	-27.608	4.870	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.615	-29.081	6.806	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.310	-28.945	4.671	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.791	-28.297	3.524	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.716	-29.164	2.863	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.657	-29.410	3.775	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.199	-30.730	3.591	1.00	0.00
ATOM	1078	N9	ADE	92	-17.461	-31.198	4.785	1.00	0.00
ATOM	1079	C8	ADE	92	-17.884	-31.219	6.090	1.00	0.00
ATOM	1080	N7	ADE	92	-16.998	-31.659	6.938	1.00	0.00
ATOM	1081	C5	ADE	92	-15.907	-31.959	6.135	1.00	0.00
ATOM	1082	C6	ADE	92	-14.630	-32.478	6.416	1.00	0.00
ATOM	1083	N6	ADE	92	-14.252	-32.776	7.660	1.00	0.00
ATOM	1084	N1	ADE	92	-13.769	-32.674	5.401	1.00	0.00
ATOM	1085	C2	ADE	92	-14.160	-32.367	4.166	1.00	0.00
ATOM	1086	N3	ADE	92	-15.332	-31.881	3.768	1.00	0.00
ATOM	1087	C4	ADE	92	-16.176	-31.689	4.817	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.237	-30.544	2.430	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.522	-31.471	3.414	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.861	-30.766	1.081	1.00	0.00
ATOM	1091	P	CYT	93	-20.338	-32.066	0.252	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.665	-31.646	-1.128	1.00	0.00

(194)

特開2003-135087

	385						386
ATOM	1093	OP2	CYT	93	-21.336	-32.809	1.053 1.00 0.00
ATOM	1094	05'	CYT	93	-18.990	-32.944	0.205 1.00 0.00
ATOM	1095	C5'	CYT	93	-17.909	-32.582	-0.634 1.00 0.00
ATOM	1096	C4'	CYT	93	-16.746	-33.550	-0.410 1.00 0.00
ATOM	1097	04'	CYT	93	-16.387	-33.524	0.953 1.00 0.00
ATOM	1098	C1'	CYT	93	-15.855	-34.774	1.323 1.00 0.00
ATOM	1099	N1	CYT	93	-16.036	-34.956	2.785 1.00 0.00
ATOM	1100	C6	CYT	93	-17.226	-34.612	3.374 1.00 0.00
ATOM	1101	C5	CYT	93	-17.418	-34.727	4.707 1.00 0.00
ATOM	1102	C4	CYT	93	-16.312	-35.220	5.478 1.00 0.00
ATOM	1103	N4	CYT	93	-16.374	-35.266	6.810 1.00 0.00
ATOM	1104	N3	CYT	93	-15.163	-35.580	4.894 1.00 0.00
ATOM	1105	C2	CYT	93	-14.992	-35.470	3.547 1.00 0.00
ATOM	1106	02	CYT	93	-13.932	-35.819	3.033 1.00 0.00
ATOM	1107	C3'	CYT	93	-17.115	-35.010	-0.707 1.00 0.00
ATOM	1108	C2'	CYT	93	-16.710	-35.777	0.549 1.00 0.00
ATOM	1109	03'	CYT	93	-16.402	-35.494	-1.827 1.00 0.00
END							
HEADER 000000							
REMARK	0.00529	1.67539	0.02530	0.01757	2.32000	1.87579	
0.00000							
REMARK	2.70711	0.28300	0.54580	1.17015	0.70817		
REMARK	0.01036	0.00464	0.00570	0.01931	0.00848		
REMARK	128	125	3	0	0	0	
0							
REMARK	1378	305	460	273	340		
REMARK	0.03398	0.18636	0.03106	0.04245	0.18636	0.11800	
REMARK	4.20922	0.34254					
REMARK	1	0	0	1	0	0	
0							
ATOM	1	N	GLU	1	-2.455	-23.175	20.738 1.00 0.00
ATOM	2	CA	GLU	1	-2.134	-22.086	21.674 1.00 0.00
ATOM	3	CB	GLU	1	-0.632	-21.779	21.692 1.00 0.00
ATOM	4	CG	GLU	1	0.203	-22.984	22.150 1.00 0.00
ATOM	5	CD	GLU	1	1.664	-22.613	22.382 1.00 0.00
ATOM	6	OE1	GLU	1	2.088	-21.524	21.935 1.00 0.00
ATOM	7	OE2	GLU	1	2.383	-23.440	22.979 1.00 0.00
ATOM	8	C	GLU	1	-2.910	-20.822	21.310 1.00 0.00
ATOM	9	O	GLU	1	-2.841	-20.376	20.167 1.00 0.00
ATOM	10	N	LYS	2	-3.634	-20.252	22.279 1.00 0.00
ATOM	11	CA	LYS	2	-4.410	-19.031	22.121 1.00 0.00
ATOM	12	CB	LYS	2	-5.901	-19.334	21.894 1.00 0.00
ATOM	13	CG	LYS	2	-6.136	-20.375	20.789 1.00 0.00
ATOM	14	CD	LYS	2	-7.541	-20.308	20.171 1.00 0.00

387

388

ATOM	15	CE	LYS	2	-8.687	-20.294	21.188	1.00	0.00
ATOM	16	NZ	LYS	2	-9.981	-20.084	20.513	1.00	0.00
ATOM	17	C	LYS	2	-4.188	-18.210	23.393	1.00	0.00
ATOM	18	O	LYS	2	-4.584	-18.652	24.470	1.00	0.00
ATOM	19	N	HIS	3	-3.549	-17.044	23.255	1.00	0.00
ATOM	20	CA	HIS	3	-3.174	-16.081	24.284	1.00	0.00
ATOM	21	CB	HIS	3	-4.226	-15.890	25.387	1.00	0.00
ATOM	22	CG	HIS	3	-5.595	-15.522	24.875	1.00	0.00
ATOM	23	ND1	HIS	3	-6.552	-16.476	24.563	1.00	0.00
ATOM	24	CE1	HIS	3	-7.646	-15.821	24.139	1.00	0.00
ATOM	25	NE2	HIS	3	-7.488	-14.496	24.148	1.00	0.00
ATOM	26	CD2	HIS	3	-6.190	-14.312	24.612	1.00	0.00
ATOM	27	C	HIS	3	-1.820	-16.471	24.875	1.00	0.00
ATOM	28	O	HIS	3	-1.646	-17.597	25.338	1.00	0.00
ATOM	29	N	ARG	4	-0.869	-15.527	24.868	1.00	0.00
ATOM	30	CA	ARG	4	0.482	-15.690	25.397	1.00	0.00
ATOM	31	CB	ARG	4	0.451	-15.997	26.906	1.00	0.00
ATOM	32	CG	ARG	4	-0.348	-14.962	27.713	1.00	0.00
ATOM	33	CD	ARG	4	-0.519	-15.424	29.164	1.00	0.00
ATOM	34	NE	ARG	4	-1.361	-16.628	29.237	1.00	0.00
ATOM	35	CZ	ARG	4	-1.671	-17.290	30.363	1.00	0.00
ATOM	36	NH1	ARG	4	-1.231	-16.851	31.551	1.00	0.00
ATOM	37	NH2	ARG	4	-2.424	-18.396	30.297	1.00	0.00
ATOM	38	C	ARG	4	1.256	-16.757	24.614	1.00	0.00
ATOM	39	O	ARG	4	1.807	-17.683	25.204	1.00	0.00
ATOM	40	N	ALA	5	1.299	-16.613	23.285	1.00	0.00
ATOM	41	CA	ALA	5	1.994	-17.521	22.381	1.00	0.00
ATOM	42	CB	ALA	5	1.014	-17.984	21.298	1.00	0.00
ATOM	43	C	ALA	5	3.201	-16.822	21.749	1.00	0.00
ATOM	44	O	ALA	5	3.314	-15.599	21.814	1.00	0.00
ATOM	45	N	ARG	6	4.084	-17.624	21.139	1.00	0.00
ATOM	46	CA	ARG	6	5.293	-17.238	20.430	1.00	0.00
ATOM	47	CB	ARG	6	6.266	-16.459	21.317	1.00	0.00
ATOM	48	CG	ARG	6	7.502	-16.055	20.499	1.00	0.00
ATOM	49	CD	ARG	6	8.033	-14.714	21.000	1.00	0.00
ATOM	50	NE	ARG	6	7.194	-13.592	20.543	1.00	0.00
ATOM	51	CZ	ARG	6	7.347	-12.870	19.416	1.00	0.00
ATOM	52	NH1	ARG	6	6.484	-11.878	19.169	1.00	0.00
ATOM	53	NH2	ARG	6	8.341	-13.128	18.552	1.00	0.00
ATOM	54	C	ARG	6	5.916	-18.502	19.847	1.00	0.00
ATOM	55	O	ARG	6	6.782	-19.098	20.484	1.00	0.00
ATOM	56	N	LYS	7	5.471	-18.912	18.650	1.00	0.00
ATOM	57	CA	LYS	7	5.979	-20.101	17.966	1.00	0.00
ATOM	58	CB	LYS	7	5.777	-21.382	18.803	1.00	0.00
ATOM	59	CG	LYS	7	4.304	-21.668	19.120	1.00	0.00
ATOM	60	CD	LYS	7	4.134	-23.044	19.782	1.00	0.00
ATOM	61	CE	LYS	7	4.961	-23.238	21.062	1.00	0.00
ATOM	62	NZ	LYS	7	4.783	-22.130	22.021	1.00	0.00
ATOM	63	C	LYS	7	5.444	-20.295	16.540	1.00	0.00
ATOM	64	O	LYS	7	5.560	-21.404	16.019	1.00	0.00

389

390

ATOM	65	N	ARG	8	4.877	-19.275	15.879	1.00	0.00
ATOM	66	CA	ARG	8	4.408	-19.459	14.507	1.00	0.00
ATOM	67	CB	ARG	8	3.693	-18.208	13.991	1.00	0.00
ATOM	68	CG	ARG	8	2.337	-17.977	14.665	1.00	0.00
ATOM	69	CD	ARG	8	1.348	-19.114	14.407	1.00	0.00
ATOM	70	NE	ARG	8	-0.024	-18.733	14.760	1.00	0.00
ATOM	71	CZ	ARG	8	-0.855	-18.030	13.979	1.00	0.00
ATOM	72	NH1	ARG	8	-0.446	-17.580	12.789	1.00	0.00
ATOM	73	NH2	ARG	8	-2.103	-17.782	14.395	1.00	0.00
ATOM	74	C	ARG	8	5.617	-19.781	13.632	1.00	0.00
ATOM	75	O	ARG	8	6.541	-18.975	13.534	1.00	0.00
ATOM	76	N	GLN	9	5.625	-20.964	13.011	1.00	0.00
ATOM	77	CA	GLN	9	6.740	-21.392	12.190	1.00	0.00
ATOM	78	CB	GLN	9	6.800	-22.925	12.134	1.00	0.00
ATOM	79	CG	GLN	9	6.941	-23.545	13.528	1.00	0.00
ATOM	80	CD	GLN	9	7.286	-25.029	13.432	1.00	0.00
ATOM	81	OE1	GLN	9	6.488	-25.828	12.946	1.00	0.00
ATOM	82	NE2	GLN	9	8.482	-25.410	13.881	1.00	0.00
ATOM	83	C	GLN	9	6.642	-20.766	10.801	1.00	0.00
ATOM	84	O	GLN	9	6.108	-21.386	9.884	1.00	0.00
ATOM	85	N	ALA	10	7.179	-19.550	10.642	1.00	0.00
ATOM	86	CA	ALA	10	7.211	-18.861	9.358	1.00	0.00
ATOM	87	CB	ALA	10	8.005	-17.559	9.484	1.00	0.00
ATOM	88	C	ALA	10	7.860	-19.809	8.351	1.00	0.00
ATOM	89	O	ALA	10	8.951	-20.315	8.617	1.00	0.00
ATOM	90	N	TRP	11	7.198	-20.088	7.223	1.00	0.00
ATOM	91	CA	TRP	11	7.759	-21.020	6.259	1.00	0.00
ATOM	92	CB	TRP	11	6.742	-21.404	5.187	1.00	0.00
ATOM	93	CG	TRP	11	5.551	-22.216	5.620	1.00	0.00
ATOM	94	CD1	TRP	11	4.655	-21.893	6.582	1.00	0.00
ATOM	95	NE1	TRP	11	3.689	-22.869	6.689	1.00	0.00
ATOM	96	CE2	TRP	11	3.921	-23.893	5.799	1.00	0.00
ATOM	97	CZ2	TRP	11	3.245	-25.090	5.524	1.00	0.00
ATOM	98	CH2	TRP	11	3.753	-25.943	4.539	1.00	0.00
ATOM	99	CZ3	TRP	11	4.913	-25.592	3.832	1.00	0.00
ATOM	100	CE3	TRP	11	5.576	-24.385	4.106	1.00	0.00
ATOM	101	CD2	TRP	11	5.105	-23.504	5.103	1.00	0.00
ATOM	102	C	TRP	11	9.034	-20.430	5.657	1.00	0.00
ATOM	103	O	TRP	11	9.094	-19.245	5.330	1.00	0.00
ATOM	104	N	LEU	12	10.052	-21.283	5.541	1.00	0.00
ATOM	105	CA	LEU	12	11.374	-20.968	5.021	1.00	0.00
ATOM	106	CB	LEU	12	12.449	-21.419	6.026	1.00	0.00
ATOM	107	CG	LEU	12	12.371	-22.915	6.398	1.00	0.00
ATOM	108	CD1	LEU	12	13.778	-23.513	6.495	1.00	0.00
ATOM	109	CD2	LEU	12	11.655	-23.118	7.742	1.00	0.00
ATOM	110	C	LEU	12	11.560	-21.631	3.658	1.00	0.00
ATOM	111	O	LEU	12	10.701	-22.404	3.226	1.00	0.00
ATOM	112	N	TRP	13	12.686	-21.335	2.987	1.00	0.00
ATOM	113	CA	TRP	13	12.978	-21.903	1.678	1.00	0.00
ATOM	114	CB	TRP	13	14.413	-21.672	1.154	1.00	0.00

391

392

ATOM	115	CG	TRP	13	15.441	-22.556	1.802	1.00	0.00
ATOM	116	CD1	TRP	13	15.689	-22.471	3.105	1.00	0.00
ATOM	117	NE1	TRP	13	16.642	-23.369	3.515	1.00	0.00
ATOM	118	CE2	TRP	13	17.048	-24.133	2.445	1.00	0.00
ATOM	119	CZ2	TRP	13	17.960	-25.190	2.341	1.00	0.00
ATOM	120	CH2	TRP	13	18.132	-25.814	1.101	1.00	0.00
ATOM	121	CZ3	TRP	13	17.398	-25.364	-0.007	1.00	0.00
ATOM	122	CE3	TRP	13	16.495	-24.290	0.098	1.00	0.00
ATOM	123	CD2	TRP	13	16.290	-23.645	1.331	1.00	0.00
ATOM	124	C	TRP	13	12.754	-23.399	1.659	1.00	0.00
ATOM	125	O	TRP	13	12.102	-23.835	0.739	1.00	0.00
ATOM	126	N	GLU	14	13.301	-24.186	2.601	1.00	0.00
ATOM	127	CA	GLU	14	13.210	-25.631	2.521	1.00	0.00
ATOM	128	CB	GLU	14	14.311	-26.359	3.297	1.00	0.00
ATOM	129	CG	GLU	14	14.477	-27.792	2.765	1.00	0.00
ATOM	130	CD	GLU	14	15.896	-28.311	2.949	1.00	0.00
ATOM	131	OE1	GLU	14	16.468	-28.725	1.916	1.00	0.00
ATOM	132	OE2	GLU	14	16.384	-28.269	4.098	1.00	0.00
ATOM	133	C	GLU	14	11.781	-26.159	2.643	1.00	0.00
ATOM	134	O	GLU	14	11.435	-27.141	1.990	1.00	0.00
ATOM	135	N	GLU	15	10.941	-25.492	3.439	1.00	0.00
ATOM	136	CA	GLU	15	9.545	-25.871	3.583	1.00	0.00
ATOM	137	CB	GLU	15	8.912	-25.128	4.766	1.00	0.00
ATOM	138	CG	GLU	15	9.474	-25.549	6.129	1.00	0.00
ATOM	139	CD	GLU	15	8.854	-26.858	6.611	1.00	0.00
ATOM	140	OE1	GLU	15	7.795	-26.787	7.276	1.00	0.00
ATOM	141	OE2	GLU	15	9.442	-27.919	6.319	1.00	0.00
ATOM	142	C	GLU	15	8.822	-25.570	2.261	1.00	0.00
ATOM	143	O	GLU	15	8.132	-26.435	1.728	1.00	0.00
ATOM	144	N	ASP	16	8.988	-24.358	1.716	1.00	0.00
ATOM	145	CA	ASP	16	8.370	-23.949	0.452	1.00	0.00
ATOM	146	CB	ASP	16	8.577	-22.443	0.238	1.00	0.00
ATOM	147	CG	ASP	16	7.835	-21.587	1.257	1.00	0.00
ATOM	148	OD1	ASP	16	6.746	-22.011	1.695	1.00	0.00
ATOM	149	OD2	ASP	16	8.337	-20.484	1.560	1.00	0.00
ATOM	150	C	ASP	16	8.938	-24.726	-0.743	1.00	0.00
ATOM	151	O	ASP	16	8.232	-25.016	-1.704	1.00	0.00
ATOM	152	N	LYS	17	10.226	-25.058	-0.669	1.00	0.00
ATOM	153	CA	LYS	17	11.025	-25.799	-1.632	1.00	0.00
ATOM	154	CB	LYS	17	12.495	-25.835	-1.134	1.00	0.00
ATOM	155	CG	LYS	17	13.325	-26.943	-1.803	1.00	0.00
ATOM	156	CD	LYS	17	14.799	-26.850	-1.388	1.00	0.00
ATOM	157	CE	LYS	17	15.564	-28.160	-1.627	1.00	0.00
ATOM	158	NZ	LYS	17	15.366	-29.132	-0.532	1.00	0.00
ATOM	159	C	LYS	17	10.392	-27.189	-1.727	1.00	0.00
ATOM	160	O	LYS	17	10.037	-27.649	-2.812	1.00	0.00
ATOM	161	N	ASN	18	10.243	-27.833	-0.565	1.00	0.00
ATOM	162	CA	ASN	18	9.640	-29.144	-0.401	1.00	0.00
ATOM	163	CB	ASN	18	9.715	-29.514	1.088	1.00	0.00
ATOM	164	CG	ASN	18	9.039	-30.830	1.443	1.00	0.00

393

394

ATOM	165	OD1	ASN	18	8.530	-31.535	0.578	1.00	0.00
ATOM	166	ND2	ASN	18	9.032	-31.160	2.734	1.00	0.00
ATOM	167	C	ASN	18	8.205	-29.113	-0.933	1.00	0.00
ATOM	168	O	ASN	18	7.845	-29.930	-1.778	1.00	0.00
ATOM	169	N	LEU	19	7.398	-28.163	-0.451	1.00	0.00
ATOM	170	CA	LEU	19	6.006	-27.969	-0.842	1.00	0.00
ATOM	171	CB	LEU	19	5.501	-26.672	-0.191	1.00	0.00
ATOM	172	CG	LEU	19	4.004	-26.397	-0.368	1.00	0.00
ATOM	173	CD1	LEU	19	3.138	-27.316	0.496	1.00	0.00
ATOM	174	CD2	LEU	19	3.744	-24.943	0.056	1.00	0.00
ATOM	175	C	LEU	19	5.871	-27.917	-2.366	1.00	0.00
ATOM	176	O	LEU	19	5.132	-28.702	-2.955	1.00	0.00
ATOM	177	N	ARG	20	6.597	-26.987	-2.995	1.00	0.00
ATOM	178	CA	ARG	20	6.610	-26.772	-4.433	1.00	0.00
ATOM	179	CB	ARG	20	7.575	-25.621	-4.741	1.00	0.00
ATOM	180	CG	ARG	20	7.653	-25.293	-6.237	1.00	0.00
ATOM	181	CD	ARG	20	8.467	-24.014	-6.466	1.00	0.00
ATOM	182	NE	ARG	20	9.838	-24.144	-5.947	1.00	0.00
ATOM	183	CZ	ARG	20	10.732	-23.145	-5.871	1.00	0.00
ATOM	184	NH1	ARG	20	11.935	-23.368	-5.327	1.00	0.00
ATOM	185	NH2	ARG	20	10.427	-21.926	-6.337	1.00	0.00
ATOM	186	C	ARG	20	6.981	-28.055	-5.176	1.00	0.00
ATOM	187	O	ARG	20	6.265	-28.462	-6.090	1.00	0.00
ATOM	188	N	SER	21	8.092	-28.690	-4.783	1.00	0.00
ATOM	189	CA	SER	21	8.554	-29.929	-5.394	1.00	0.00
ATOM	190	CB	SER	21	9.814	-30.420	-4.670	1.00	0.00
ATOM	191	OG	SER	21	10.320	-31.585	-5.290	1.00	0.00
ATOM	192	C	SER	21	7.437	-30.975	-5.348	1.00	0.00
ATOM	193	O	SER	21	7.087	-31.566	-6.370	1.00	0.00
ATOM	194	N	GLY	22	6.874	-31.182	-4.156	1.00	0.00
ATOM	195	CA	GLY	22	5.799	-32.119	-3.912	1.00	0.00
ATOM	196	C	GLY	22	4.619	-31.866	-4.846	1.00	0.00
ATOM	197	O	GLY	22	4.246	-32.756	-5.603	1.00	0.00
ATOM	198	N	VAL	23	4.033	-30.665	-4.790	1.00	0.00
ATOM	199	CA	VAL	23	2.891	-30.283	-5.613	1.00	0.00
ATOM	200	CB	VAL	23	2.491	-28.823	-5.334	1.00	0.00
ATOM	201	CG1	VAL	23	1.432	-28.338	-6.333	1.00	0.00
ATOM	202	CG2	VAL	23	1.899	-28.698	-3.926	1.00	0.00
ATOM	203	C	VAL	23	3.164	-30.524	-7.099	1.00	0.00
ATOM	204	O	VAL	23	2.332	-31.107	-7.788	1.00	0.00
ATOM	205	N	ARG	24	4.317	-30.081	-7.609	1.00	0.00
ATOM	206	CA	ARG	24	4.644	-30.264	-9.017	1.00	0.00
ATOM	207	CB	ARG	24	5.918	-29.484	-9.370	1.00	0.00
ATOM	208	CG	ARG	24	5.662	-27.970	-9.323	1.00	0.00
ATOM	209	CD	ARG	24	6.932	-27.175	-9.652	1.00	0.00
ATOM	210	NE	ARG	24	7.371	-27.377	-11.043	1.00	0.00
ATOM	211	CZ	ARG	24	6.865	-26.758	-12.124	1.00	0.00
ATOM	212	NH1	ARG	24	5.851	-25.890	-12.005	1.00	0.00
ATOM	213	NH2	ARG	24	7.380	-27.012	-13.334	1.00	0.00
ATOM	214	C	ARG	24	4.771	-31.744	-9.397	1.00	0.00

395					396				
ATOM	215	O	ARG	24	4.377	-32.125	-10.497	1.00	0.00
ATOM	216	N	LYS	25	5.327	-32.576	-8.510	1.00	0.00
ATOM	217	CA	LYS	25	5.537	-33.996	-8.770	1.00	0.00
ATOM	218	CB	LYS	25	6.671	-34.513	-7.879	1.00	0.00
ATOM	219	CG	LYS	25	8.015	-33.915	-8.321	1.00	0.00
ATOM	220	CD	LYS	25	9.148	-34.282	-7.358	1.00	0.00
ATOM	221	CE	LYS	25	9.445	-35.785	-7.389	1.00	0.00
ATOM	222	NZ	LYS	25	10.619	-36.116	-6.568	1.00	0.00
ATOM	223	C	LYS	25	4.293	-34.873	-8.599	1.00	0.00
ATOM	224	O	LYS	25	4.108	-35.803	-9.383	1.00	0.00
ATOM	225	N	TYR	26	3.470	-34.623	-7.576	1.00	0.00
ATOM	226	CA	TYR	26	2.301	-35.441	-7.257	1.00	0.00
ATOM	227	CB	TYR	26	2.466	-35.977	-5.829	1.00	0.00
ATOM	228	CG	TYR	26	3.851	-36.540	-5.547	1.00	0.00
ATOM	229	CD1	TYR	26	4.374	-37.562	-6.361	1.00	0.00
ATOM	230	CE1	TYR	26	5.658	-38.076	-6.116	1.00	0.00
ATOM	231	CZ	TYR	26	6.426	-37.570	-5.052	1.00	0.00
ATOM	232	OH	TYR	26	7.674	-38.066	-4.810	1.00	0.00
ATOM	233	CE2	TYR	26	5.907	-36.552	-4.237	1.00	0.00
ATOM	234	CD2	TYR	26	4.623	-36.037	-4.483	1.00	0.00
ATOM	235	C	TYR	26	0.960	-34.728	-7.443	1.00	0.00
ATOM	236	O	TYR	26	-0.077	-35.311	-7.131	1.00	0.00
ATOM	237	N	GLY	27	0.957	-33.492	-7.950	1.00	0.00
ATOM	238	CA	GLY	27	-0.257	-32.725	-8.184	1.00	0.00
ATOM	239	C	GLY	27	-0.770	-32.053	-6.911	1.00	0.00
ATOM	240	O	GLY	27	-0.495	-32.503	-5.798	1.00	0.00
ATOM	241	N	GLU	28	-1.530	-30.968	-7.090	1.00	0.00
ATOM	242	CA	GLU	28	-2.121	-30.208	-5.999	1.00	0.00
ATOM	243	CB	GLU	28	-2.482	-28.802	-6.504	1.00	0.00
ATOM	244	CG	GLU	28	-2.658	-27.803	-5.354	1.00	0.00
ATOM	245	CD	GLU	28	-3.054	-26.420	-5.852	1.00	0.00
ATOM	246	OE1	GLU	28	-2.363	-25.895	-6.755	1.00	0.00
ATOM	247	OE2	GLU	28	-4.038	-25.868	-5.312	1.00	0.00
ATOM	248	C	GLU	28	-3.348	-30.961	-5.473	1.00	0.00
ATOM	249	O	GLU	28	-3.928	-31.782	-6.183	1.00	0.00
ATOM	250	N	GLY	29	-3.743	-30.684	-4.228	1.00	0.00
ATOM	251	CA	GLY	29	-4.892	-31.318	-3.597	1.00	0.00
ATOM	252	C	GLY	29	-4.632	-32.779	-3.229	1.00	0.00
ATOM	253	O	GLY	29	-5.577	-33.536	-3.026	1.00	0.00
ATOM	254	N	ASN	30	-3.354	-33.169	-3.137	1.00	0.00
ATOM	255	CA	ASN	30	-2.910	-34.511	-2.789	1.00	0.00
ATOM	256	CB	ASN	30	-2.286	-35.191	-4.019	1.00	0.00
ATOM	257	CG	ASN	30	-3.267	-35.329	-5.181	1.00	0.00
ATOM	258	OD1	ASN	30	-4.431	-35.667	-4.985	1.00	0.00
ATOM	259	ND2	ASN	30	-2.804	-35.085	-6.407	1.00	0.00
ATOM	260	C	ASN	30	-1.898	-34.355	-1.658	1.00	0.00
ATOM	261	O	ASN	30	-0.776	-34.857	-1.733	1.00	0.00
ATOM	262	N	TRP	31	-2.293	-33.639	-0.602	1.00	0.00
ATOM	263	CA	TRP	31	-1.422	-33.388	0.536	1.00	0.00
ATOM	264	CB	TRP	31	-1.959	-32.276	1.443	1.00	0.00

(200)

特開2003-135087

397

398

ATOM	265	CG	TRP	31	-2.609	-31.192	0.647	1.00	0.00
ATOM	266	CD1	TRP	31	-3.939	-31.010	0.517	1.00	0.00
ATOM	267	NE1	TRP	31	-4.181	-29.941	-0.315	1.00	0.00
ATOM	268	CE2	TRP	31	-3.007	-29.375	-0.765	1.00	0.00
ATOM	269	CZ2	TRP	31	-2.723	-28.295	-1.614	1.00	0.00
ATOM	270	CH2	TRP	31	-1.384	-27.970	-1.880	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.349	-28.724	-1.300	1.00	0.00
ATOM	272	CE3	TRP	31	-0.645	-29.806	-0.452	1.00	0.00
ATOM	273	CD2	TRP	31	-1.980	-30.158	-0.161	1.00	0.00
ATOM	274	C	TRP	31	-1.017	-34.697	1.204	1.00	0.00
ATOM	275	O	TRP	31	0.068	-34.757	1.772	1.00	0.00
ATOM	276	N	SER	32	-1.836	-35.754	1.080	1.00	0.00
ATOM	277	CA	SER	32	-1.488	-37.079	1.583	1.00	0.00
ATOM	278	CB	SER	32	-2.549	-38.118	1.192	1.00	0.00
ATOM	279	OG	SER	32	-3.808	-37.807	1.732	1.00	0.00
ATOM	280	C	SER	32	-0.157	-37.498	0.955	1.00	0.00
ATOM	281	O	SER	32	0.758	-37.931	1.651	1.00	0.00
ATOM	282	N	LYS	33	-0.048	-37.357	-0.372	1.00	0.00
ATOM	283	CA	LYS	33	1.158	-37.696	-1.110	1.00	0.00
ATOM	284	CB	LYS	33	0.922	-37.577	-2.626	1.00	0.00
ATOM	285	CG	LYS	33	0.007	-38.683	-3.174	1.00	0.00
ATOM	286	CD	LYS	33	0.770	-39.991	-3.433	1.00	0.00
ATOM	287	CE	LYS	33	1.548	-39.935	-4.756	1.00	0.00
ATOM	288	NZ	LYS	33	2.443	-41.095	-4.907	1.00	0.00
ATOM	289	C	LYS	33	2.295	-36.780	-0.668	1.00	0.00
ATOM	290	O	LYS	33	3.381	-37.266	-0.361	1.00	0.00
ATOM	291	N	ILE	34	2.051	-35.464	-0.637	1.00	0.00
ATOM	292	CA	ILE	34	3.073	-34.499	-0.253	1.00	0.00
ATOM	293	CB	ILE	34	2.528	-33.054	-0.307	1.00	0.00
ATOM	294	CG2	ILE	34	3.654	-32.059	-0.002	1.00	0.00
ATOM	295	CG1	ILE	34	1.875	-32.647	-1.645	1.00	0.00
ATOM	296	CD1	ILE	34	2.483	-33.283	-2.886	1.00	0.00
ATOM	297	C	ILE	34	3.697	-34.853	1.106	1.00	0.00
ATOM	298	O	ILE	34	4.915	-35.011	1.198	1.00	0.00
ATOM	299	N	LEU	35	2.876	-34.983	2.156	1.00	0.00
ATOM	300	CA	LEU	35	3.340	-35.304	3.502	1.00	0.00
ATOM	301	CB	LEU	35	2.258	-34.999	4.555	1.00	0.00
ATOM	302	CG	LEU	35	1.047	-35.951	4.587	1.00	0.00
ATOM	303	CD1	LEU	35	1.258	-37.133	5.544	1.00	0.00
ATOM	304	CD2	LEU	35	-0.203	-35.185	5.045	1.00	0.00
ATOM	305	C	LEU	35	3.930	-36.715	3.605	1.00	0.00
ATOM	306	O	LEU	35	4.856	-36.929	4.383	1.00	0.00
ATOM	307	N	LEU	36	3.412	-37.680	2.832	1.00	0.00
ATOM	308	CA	LEU	36	3.911	-39.051	2.858	1.00	0.00
ATOM	309	CB	LEU	36	2.948	-39.969	2.085	1.00	0.00
ATOM	310	CG	LEU	36	3.367	-41.450	2.040	1.00	0.00
ATOM	311	CD1	LEU	36	2.111	-42.330	1.999	1.00	0.00
ATOM	312	CD2	LEU	36	4.219	-41.781	0.805	1.00	0.00
ATOM	313	C	LEU	36	5.328	-39.102	2.296	1.00	0.00
ATOM	314	O	LEU	36	6.220	-39.686	2.908	1.00	0.00

(201)

特開2003-135087

399

400

ATOM	315	N	HIS	37	5.529	-38.502	1.120	1.00	0.00
ATOM	316	CA	HIS	37	6.815	-38.490	0.447	1.00	0.00
ATOM	317	CB	HIS	37	6.627	-38.109	-1.025	1.00	0.00
ATOM	318	CG	HIS	37	5.884	-39.169	-1.801	1.00	0.00
ATOM	319	ND1	HIS	37	6.382	-40.452	-1.956	1.00	0.00
ATOM	320	CE1	HIS	37	5.491	-41.143	-2.685	1.00	0.00
ATOM	321	NE2	HIS	37	4.428	-40.414	-3.034	1.00	0.00
ATOM	322	CD2	HIS	37	4.685	-39.166	-2.470	1.00	0.00
ATOM	323	C	HIS	37	7.836	-37.590	1.138	1.00	0.00
ATOM	324	O	HIS	37	9.019	-37.928	1.131	1.00	0.00
ATOM	325	N	TYR	38	7.411	-36.457	1.714	1.00	0.00
ATOM	326	CA	TYR	38	8.323	-35.526	2.367	1.00	0.00
ATOM	327	CB	TYR	38	8.571	-34.337	1.441	1.00	0.00
ATOM	328	CG	TYR	38	9.050	-34.682	0.048	1.00	0.00
ATOM	329	CD1	TYR	38	8.274	-34.349	-1.078	1.00	0.00
ATOM	330	CE1	TYR	38	8.729	-34.672	-2.368	1.00	0.00
ATOM	331	CZ	TYR	38	9.963	-35.330	-2.528	1.00	0.00
ATOM	332	OH	TYR	38	10.428	-35.654	-3.768	1.00	0.00
ATOM	333	CE2	TYR	38	10.737	-35.662	-1.404	1.00	0.00
ATOM	334	CD2	TYR	38	10.282	-35.338	-0.118	1.00	0.00
ATOM	335	C	TYR	38	7.778	-35.002	3.692	1.00	0.00
ATOM	336	O	TYR	38	6.624	-34.593	3.775	1.00	0.00
ATOM	337	N	LYS	39	8.633	-34.984	4.720	1.00	0.00
ATOM	338	CA	LYS	39	8.303	-34.470	6.039	1.00	0.00
ATOM	339	CB	LYS	39	9.110	-35.241	7.095	1.00	0.00
ATOM	340	CG	LYS	39	8.767	-34.794	8.521	1.00	0.00
ATOM	341	CD	LYS	39	9.473	-35.674	9.557	1.00	0.00
ATOM	342	CE	LYS	39	9.136	-35.181	10.971	1.00	0.00
ATOM	343	NZ	LYS	39	9.819	-35.978	12.006	1.00	0.00
ATOM	344	C	LYS	39	8.606	-32.968	6.063	1.00	0.00
ATOM	345	O	LYS	39	9.517	-32.507	5.377	1.00	0.00
ATOM	346	N	PHE	40	7.837	-32.217	6.858	1.00	0.00
ATOM	347	CA	PHE	40	7.958	-30.774	7.038	1.00	0.00
ATOM	348	CB	PHE	40	6.688	-30.093	6.515	1.00	0.00
ATOM	349	CG	PHE	40	6.425	-30.193	5.025	1.00	0.00
ATOM	350	CD1	PHE	40	6.001	-31.404	4.447	1.00	0.00
ATOM	351	CE1	PHE	40	5.754	-31.479	3.067	1.00	0.00
ATOM	352	CZ	PHE	40	5.922	-30.342	2.255	1.00	0.00
ATOM	353	CE2	PHE	40	6.346	-29.135	2.832	1.00	0.00
ATOM	354	CD2	PHE	40	6.598	-29.057	4.210	1.00	0.00
ATOM	355	C	PHE	40	8.155	-30.486	8.534	1.00	0.00
ATOM	356	O	PHE	40	8.289	-31.426	9.318	1.00	0.00
ATOM	357	N	ASN	41	8.165	-29.209	8.951	1.00	0.00
ATOM	358	CA	ASN	41	8.333	-28.850	10.359	1.00	0.00
ATOM	359	CB	ASN	41	8.312	-27.322	10.564	1.00	0.00
ATOM	360	CG	ASN	41	9.381	-26.527	9.814	1.00	0.00
ATOM	361	OD1	ASN	41	9.168	-25.355	9.510	1.00	0.00
ATOM	362	ND2	ASN	41	10.530	-27.132	9.511	1.00	0.00
ATOM	363	C	ASN	41	7.238	-29.512	11.205	1.00	0.00
ATOM	364	O	ASN	41	7.523	-30.367	12.040	1.00	0.00

(202)

特開2003-135087

401				402					
ATOM	365	N	ASN	42	5.983	-29.112	10.970	1.00	0.00
ATOM	366	CA	ASN	42	4.785	-29.611	11.637	1.00	0.00
ATOM	367	CB	ASN	42	4.776	-29.206	13.122	1.00	0.00
ATOM	368	CG	ASN	42	3.546	-29.739	13.851	1.00	0.00
ATOM	369	OD1	ASN	42	2.745	-28.974	14.380	1.00	0.00
ATOM	370	ND2	ASN	42	3.393	-31.063	13.897	1.00	0.00
ATOM	371	C	ASN	42	3.601	-29.025	10.869	1.00	0.00
ATOM	372	O	ASN	42	2.835	-28.220	11.394	1.00	0.00
ATOM	373	N	ARG	43	3.491	-29.410	9.594	1.00	0.00
ATOM	374	CA	ARG	43	2.486	-28.904	8.674	1.00	0.00
ATOM	375	CB	ARG	43	3.185	-28.454	7.382	1.00	0.00
ATOM	376	CG	ARG	43	4.473	-27.654	7.620	1.00	0.00
ATOM	377	CD	ARG	43	4.307	-26.384	8.457	1.00	0.00
ATOM	378	NE	ARG	43	5.559	-25.624	8.416	1.00	0.00
ATOM	379	CZ	ARG	43	5.734	-24.370	8.851	1.00	0.00
ATOM	380	NH1	ARG	43	4.729	-23.666	9.384	1.00	0.00
ATOM	381	NH2	ARG	43	6.942	-23.806	8.756	1.00	0.00
ATOM	382	C	ARG	43	1.420	-29.957	8.377	1.00	0.00
ATOM	383	O	ARG	43	1.712	-30.980	7.761	1.00	0.00
ATOM	384	N	THR	44	0.180	-29.695	8.801	1.00	0.00
ATOM	385	CA	THR	44	-0.956	-30.575	8.558	1.00	0.00
ATOM	386	CB	THR	44	-2.113	-30.204	9.502	1.00	0.00
ATOM	387	CG2	THR	44	-1.708	-30.277	10.977	1.00	0.00
ATOM	388	OG1	THR	44	-2.600	-28.908	9.195	1.00	0.00
ATOM	389	C	THR	44	-1.421	-30.397	7.112	1.00	0.00
ATOM	390	O	THR	44	-0.955	-29.492	6.424	1.00	0.00
ATOM	391	N	SER	45	-2.365	-31.228	6.656	1.00	0.00
ATOM	392	CA	SER	45	-2.938	-31.113	5.319	1.00	0.00
ATOM	393	CB	SER	45	-4.026	-32.171	5.144	1.00	0.00
ATOM	394	OG	SER	45	-3.456	-33.456	5.270	1.00	0.00
ATOM	395	C	SER	45	-3.498	-29.700	5.127	1.00	0.00
ATOM	396	O	SER	45	-3.273	-29.076	4.091	1.00	0.00
ATOM	397	N	VAL	46	-4.204	-29.191	6.149	1.00	0.00
ATOM	398	CA	VAL	46	-4.762	-27.848	6.139	1.00	0.00
ATOM	399	CB	VAL	46	-5.582	-27.555	7.412	1.00	0.00
ATOM	400	CG1	VAL	46	-6.316	-26.213	7.274	1.00	0.00
ATOM	401	CG2	VAL	46	-6.633	-28.631	7.706	1.00	0.00
ATOM	402	C	VAL	46	-3.624	-26.838	5.996	1.00	0.00
ATOM	403	O	VAL	46	-3.730	-25.920	5.192	1.00	0.00
ATOM	404	N	MET	47	-2.544	-27.002	6.773	1.00	0.00
ATOM	405	CA	MET	47	-1.397	-26.100	6.744	1.00	0.00
ATOM	406	CB	MET	47	-0.372	-26.509	7.810	1.00	0.00
ATOM	407	CG	MET	47	0.250	-25.277	8.472	1.00	0.00
ATOM	408	SD	MET	47	-0.814	-24.512	9.723	1.00	0.00
ATOM	409	CE	MET	47	-0.579	-25.679	11.090	1.00	0.00
ATOM	410	C	MET	47	-0.746	-26.043	5.357	1.00	0.00
ATOM	411	O	MET	47	-0.567	-24.961	4.803	1.00	0.00
ATOM	412	N	LEU	48	-0.395	-27.211	4.803	1.00	0.00
ATOM	413	CA	LEU	48	0.227	-27.370	3.493	1.00	0.00
ATOM	414	CB	LEU	48	0.341	-28.872	3.159	1.00	0.00

(203)

特開2003-135087

403

404

ATOM	415	CG	LEU	48	1.383	-29.609	4.021	1.00	0.00
ATOM	416	CD1	LEU	48	1.009	-31.077	4.236	1.00	0.00
ATOM	417	CD2	LEU	48	2.763	-29.608	3.359	1.00	0.00
ATOM	418	C	LEU	48	-0.615	-26.641	2.446	1.00	0.00
ATOM	419	O	LEU	48	-0.116	-25.782	1.713	1.00	0.00
ATOM	420	N	LYS	49	-1.903	-26.989	2.404	1.00	0.00
ATOM	421	CA	LYS	49	-2.859	-26.405	1.487	1.00	0.00
ATOM	422	CB	LYS	49	-4.222	-27.070	1.703	1.00	0.00
ATOM	423	CG	LYS	49	-5.253	-26.594	0.668	1.00	0.00
ATOM	424	CD	LYS	49	-6.535	-26.067	1.317	1.00	0.00
ATOM	425	CE	LYS	49	-6.332	-24.814	2.178	1.00	0.00
ATOM	426	NZ	LYS	49	-7.616	-24.261	2.642	1.00	0.00
ATOM	427	C	LYS	49	-2.952	-24.889	1.657	1.00	0.00
ATOM	428	O	LYS	49	-2.887	-24.164	0.670	1.00	0.00
ATOM	429	N	ASP	50	-3.124	-24.407	2.890	1.00	0.00
ATOM	430	CA	ASP	50	-3.271	-22.990	3.190	1.00	0.00
ATOM	431	CB	ASP	50	-3.591	-22.791	4.673	1.00	0.00
ATOM	432	CG	ASP	50	-3.889	-21.330	4.977	1.00	0.00
ATOM	433	OD1	ASP	50	-3.254	-20.807	5.917	1.00	0.00
ATOM	434	OD2	ASP	50	-4.768	-20.771	4.283	1.00	0.00
ATOM	435	C	ASP	50	-2.049	-22.182	2.761	1.00	0.00
ATOM	436	O	ASP	50	-2.198	-21.124	2.152	1.00	0.00
ATOM	437	N	ARG	51	-0.843	-22.681	3.051	1.00	0.00
ATOM	438	CA	ARG	51	0.385	-22.008	2.656	1.00	0.00
ATOM	439	CB	ARG	51	1.606	-22.818	3.116	1.00	0.00
ATOM	440	CG	ARG	51	2.915	-22.017	3.205	1.00	0.00
ATOM	441	CD	ARG	51	3.175	-20.952	2.139	1.00	0.00
ATOM	442	NE	ARG	51	4.560	-20.457	2.226	1.00	0.00
ATOM	443	CZ	ARG	51	4.966	-19.203	2.491	1.00	0.00
ATOM	444	NH1	ARG	51	4.098	-18.261	2.870	1.00	0.00
ATOM	445	NH2	ARG	51	6.260	-18.882	2.376	1.00	0.00
ATOM	446	C	ARG	51	0.366	-21.857	1.134	1.00	0.00
ATOM	447	O	ARG	51	0.499	-20.747	0.616	1.00	0.00
ATOM	448	N	TRP	52	0.182	-22.978	0.422	1.00	0.00
ATOM	449	CA	TRP	52	0.132	-22.982	-1.028	1.00	0.00
ATOM	450	CB	TRP	52	-0.024	-24.413	-1.544	1.00	0.00
ATOM	451	CG	TRP	52	0.127	-24.541	-3.025	1.00	0.00
ATOM	452	CD1	TRP	52	-0.888	-24.705	-3.898	1.00	0.00
ATOM	453	NE1	TRP	52	-0.394	-24.791	-5.183	1.00	0.00
ATOM	454	CE2	TRP	52	0.981	-24.678	-5.200	1.00	0.00
ATOM	455	CZ2	TRP	52	1.934	-24.698	-6.230	1.00	0.00
ATOM	456	CH2	TRP	52	3.293	-24.558	-5.910	1.00	0.00
ATOM	457	CZ3	TRP	52	3.682	-24.397	-4.569	1.00	0.00
ATOM	458	CE3	TRP	52	2.717	-24.377	-3.544	1.00	0.00
ATOM	459	CD2	TRP	52	1.343	-24.518	-3.830	1.00	0.00
ATOM	460	C	TRP	52	-0.994	-22.089	-1.555	1.00	0.00
ATOM	461	O	TRP	52	-0.843	-21.480	-2.608	1.00	0.00
ATOM	462	N	ARG	53	-2.117	-22.007	-0.837	1.00	0.00
ATOM	463	CA	ARG	53	-3.267	-21.201	-1.211	1.00	0.00
ATOM	464	CB	ARG	53	-4.444	-21.530	-0.285	1.00	0.00

405				406					
ATOM	465	CG	ARG	53	-5.718	-20.764	-0.646	1.00	0.00
ATOM	466	CD	ARG	53	-6.883	-21.249	0.222	1.00	0.00
ATOM	467	NE	ARG	53	-6.691	-20.928	1.649	1.00	0.00
ATOM	468	CZ	ARG	53	-7.660	-20.983	2.576	1.00	0.00
ATOM	469	NH1	ARG	53	-7.411	-20.577	3.824	1.00	0.00
ATOM	470	NH2	ARG	53	-8.868	-21.477	2.272	1.00	0.00
ATOM	471	C	ARG	53	-2.900	-19.719	-1.187	1.00	0.00
ATOM	472	O	ARG	53	-3.042	-19.048	-2.206	1.00	0.00
ATOM	473	N	THR	54	-2.428	-19.205	-0.043	1.00	0.00
ATOM	474	CA	THR	54	-2.035	-17.807	0.093	1.00	0.00
ATOM	475	CB	THR	54	-1.512	-17.540	1.515	1.00	0.00
ATOM	476	CG2	THR	54	-1.264	-16.044	1.734	1.00	0.00
ATOM	477	OG1	THR	54	-2.448	-17.985	2.472	1.00	0.00
ATOM	478	C	THR	54	-0.969	-17.473	-0.952	1.00	0.00
ATOM	479	O	THR	54	-1.107	-16.510	-1.709	1.00	0.00
ATOM	480	N	MET	55	0.088	-18.293	-0.985	1.00	0.00
ATOM	481	CA	MET	55	1.204	-18.154	-1.901	1.00	0.00
ATOM	482	CB	MET	55	2.166	-19.330	-1.677	1.00	0.00
ATOM	483	CG	MET	55	3.433	-19.258	-2.541	1.00	0.00
ATOM	484	SD	MET	55	3.905	-20.811	-3.352	1.00	0.00
ATOM	485	CE	MET	55	2.500	-21.014	-4.477	1.00	0.00
ATOM	486	C	MET	55	0.714	-18.080	-3.350	1.00	0.00
ATOM	487	O	MET	55	1.078	-17.158	-4.070	1.00	0.00
ATOM	488	N	LYS	56	-0.098	-19.045	-3.789	1.00	0.00
ATOM	489	CA	LYS	56	-0.612	-19.098	-5.149	1.00	0.00
ATOM	490	CB	LYS	56	-1.345	-20.426	-5.390	1.00	0.00
ATOM	491	CG	LYS	56	-1.838	-20.533	-6.839	1.00	0.00
ATOM	492	CD	LYS	56	-2.278	-21.951	-7.221	1.00	0.00
ATOM	493	CE	LYS	56	-3.395	-22.483	-6.317	1.00	0.00
ATOM	494	NZ	LYS	56	-3.971	-23.725	-6.862	1.00	0.00
ATOM	495	C	LYS	56	-1.485	-17.886	-5.466	1.00	0.00
ATOM	496	O	LYS	56	-1.296	-17.264	-6.508	1.00	0.00
ATOM	497	N	LYS	57	-2.437	-17.550	-4.589	1.00	0.00
ATOM	498	CA	LYS	57	-3.335	-16.421	-4.793	1.00	0.00
ATOM	499	CB	LYS	57	-4.306	-16.282	-3.609	1.00	0.00
ATOM	500	CG	LYS	57	-5.443	-17.314	-3.661	1.00	0.00
ATOM	501	CD	LYS	57	-6.398	-17.110	-2.476	1.00	0.00
ATOM	502	CE	LYS	57	-7.625	-18.025	-2.591	1.00	0.00
ATOM	503	NZ	LYS	57	-8.575	-17.824	-1.478	1.00	0.00
ATOM	504	C	LYS	57	-2.571	-15.113	-5.013	1.00	0.00
ATOM	505	O	LYS	57	-2.866	-14.388	-5.960	1.00	0.00
ATOM	506	N	LEU	58	-1.609	-14.800	-4.138	1.00	0.00
ATOM	507	CA	LEU	58	-0.849	-13.559	-4.224	1.00	0.00
ATOM	508	CB	LEU	58	-0.322	-13.201	-2.826	1.00	0.00
ATOM	509	CG	LEU	58	0.363	-11.821	-2.773	1.00	0.00
ATOM	510	CD1	LEU	58	0.059	-11.155	-1.429	1.00	0.00
ATOM	511	CD2	LEU	58	1.888	-11.925	-2.927	1.00	0.00
ATOM	512	C	LEU	58	0.278	-13.602	-5.258	1.00	0.00
ATOM	513	O	LEU	58	0.385	-12.708	-6.093	1.00	0.00
ATOM	514	N	LYS	59	1.144	-14.616	-5.181	1.00	0.00

(205)

特開2003-135087

407

408

ATOM	515	CA	LYS	59	2.311	-14.750	-6.045	1.00	0.00
ATOM	516	CB	LYS	59	3.297	-15.739	-5.407	1.00	0.00
ATOM	517	CG	LYS	59	4.753	-15.463	-5.805	1.00	0.00
ATOM	518	CD	LYS	59	5.740	-16.206	-4.888	1.00	0.00
ATOM	519	CE	LYS	59	6.186	-15.396	-3.654	1.00	0.00
ATOM	520	NZ	LYS	59	5.085	-15.050	-2.733	1.00	0.00
ATOM	521	C	LYS	59	1.960	-15.115	-7.487	1.00	0.00
ATOM	522	O	LYS	59	2.590	-14.597	-8.406	1.00	0.00
ATOM	523	N	LEU	60	0.973	-16.000	-7.685	1.00	0.00
ATOM	524	CA	LEU	60	0.518	-16.463	-8.992	1.00	0.00
ATOM	525	CB	LEU	60	-0.021	-15.298	-9.845	1.00	0.00
ATOM	526	CG	LEU	60	-0.760	-15.751	-11.118	1.00	0.00
ATOM	527	CD1	LEU	60	-2.084	-16.457	-10.801	1.00	0.00
ATOM	528	CD2	LEU	60	-1.047	-14.523	-11.990	1.00	0.00
ATOM	529	C	LEU	60	1.655	-17.245	-9.639	1.00	0.00
ATOM	530	O	LEU	60	2.230	-16.840	-10.647	1.00	0.00
ATOM	531	N	ILE	61	1.987	-18.377	-9.014	1.00	0.00
ATOM	532	CA	ILE	61	3.073	-19.237	-9.452	1.00	0.00
ATOM	533	CB	ILE	61	3.351	-20.306	-8.373	1.00	0.00
ATOM	534	CG2	ILE	61	2.717	-21.668	-8.692	1.00	0.00
ATOM	535	CG1	ILE	61	4.867	-20.378	-8.150	1.00	0.00
ATOM	536	CD1	ILE	61	5.293	-21.430	-7.125	1.00	0.00
ATOM	537	C	ILE	61	2.825	-19.816	-10.849	1.00	0.00
ATOM	538	O	ILE	61	1.680	-19.985	-11.266	1.00	0.00
ATOM	539	N	SER	62	3.916	-20.124	-11.560	1.00	0.00
ATOM	540	CA	SER	62	3.914	-20.691	-12.902	1.00	0.00
ATOM	541	CB	SER	62	3.250	-22.078	-12.900	1.00	0.00
ATOM	542	OG	SER	62	3.533	-22.757	-14.106	1.00	0.00
ATOM	543	C	SER	62	3.300	-19.743	-13.939	1.00	0.00
ATOM	544	O	SER	62	2.660	-20.199	-14.886	1.00	0.00
ATOM	545	N	SER	63	3.506	-18.432	-13.768	1.00	0.00
ATOM	546	CA	SER	63	3.018	-17.406	-14.678	1.00	0.00
ATOM	547	CB	SER	63	2.915	-16.088	-13.898	1.00	0.00
ATOM	548	OG	SER	63	4.146	-15.800	-13.262	1.00	0.00
ATOM	549	C	SER	63	3.970	-17.278	-15.872	1.00	0.00
ATOM	550	O	SER	63	4.985	-17.972	-15.941	1.00	0.00
ATOM	551	N	ASP	64	3.647	-16.376	-16.807	1.00	0.00
ATOM	552	CA	ASP	64	4.429	-16.101	-18.006	1.00	0.00
ATOM	553	CB	ASP	64	3.552	-15.339	-19.014	1.00	0.00
ATOM	554	CG	ASP	64	2.265	-16.087	-19.338	1.00	0.00
ATOM	555	OD1	ASP	64	2.248	-16.778	-20.380	1.00	0.00
ATOM	556	OD2	ASP	64	1.321	-15.955	-18.527	1.00	0.00
ATOM	557	C	ASP	64	5.688	-15.304	-17.640	1.00	0.00
ATOM	558	O	ASP	64	5.829	-14.139	-18.007	1.00	0.00
ATOM	559	N	SER	65	6.601	-15.941	-16.901	1.00	0.00
ATOM	560	CA	SER	65	7.850	-15.349	-16.448	1.00	0.00
ATOM	561	CB	SER	65	8.328	-16.092	-15.192	1.00	0.00
ATOM	562	OG	SER	65	9.434	-15.431	-14.609	1.00	0.00
ATOM	563	C	SER	65	8.918	-15.427	-17.538	1.00	0.00
ATOM	564	O	SER	65	8.755	-16.119	-18.543	1.00	0.00

409

410

ATOM	565	N	GLU	66	10.030	-14.725	-17.304	1.00	0.00
ATOM	566	CA	GLU	66	11.193	-14.718	-18.177	1.00	0.00
ATOM	567	CB	GLU	66	12.048	-13.483	-17.860	1.00	0.00
ATOM	568	CG	GLU	66	13.175	-13.280	-18.877	1.00	0.00
ATOM	569	CD	GLU	66	13.917	-11.973	-18.619	1.00	0.00
ATOM	570	OE1	GLU	66	13.408	-10.930	-19.085	1.00	0.00
ATOM	571	OE2	GLU	66	14.973	-12.036	-17.952	1.00	0.00
ATOM	572	C	GLU	66	11.949	-16.035	-17.956	1.00	0.00
ATOM	573	O	GLU	66	12.487	-16.613	-18.899	1.00	0.00
ATOM	574	N	ASP	67	11.958	-16.501	-16.700	1.00	0.00
ATOM	575	CA	ASP	67	12.568	-17.733	-16.229	1.00	0.00
ATOM	576	CB	ASP	67	14.005	-17.461	-15.767	1.00	0.00
ATOM	577	CG	ASP	67	14.679	-18.725	-15.241	1.00	0.00
ATOM	578	OD1	ASP	67	14.972	-19.605	-16.082	1.00	0.00
ATOM	579	OD2	ASP	67	14.914	-18.785	-14.015	1.00	0.00
ATOM	580	C	ASP	67	11.695	-18.246	-15.079	1.00	0.00
ATOM	581	OT1	ASP	67	11.089	-19.320	-15.289	1.00	0.00
ATOM	582	OT2	ASP	67	11.289	-17.368	-14.281	1.00	0.00
ATOM	583	O5'	GUA	68	-6.791	-41.247	11.196	1.00	0.00
ATOM	584	C5'	GUA	68	-6.583	-41.870	9.946	1.00	0.00
ATOM	585	C4'	GUA	68	-6.944	-40.938	8.785	1.00	0.00
ATOM	586	O4'	GUA	68	-8.269	-40.455	8.897	1.00	0.00
ATOM	587	C1'	GUA	68	-8.392	-39.377	7.995	1.00	0.00
ATOM	588	N9	GUA	68	-9.550	-38.518	8.310	1.00	0.00
ATOM	589	C8	GUA	68	-9.887	-37.964	9.515	1.00	0.00
ATOM	590	N7	GUA	68	-10.960	-37.224	9.482	1.00	0.00
ATOM	591	C5	GUA	68	-11.352	-37.269	8.147	1.00	0.00
ATOM	592	C6	GUA	68	-12.438	-36.623	7.480	1.00	0.00
ATOM	593	O6	GUA	68	-13.328	-35.930	7.968	1.00	0.00
ATOM	594	N1	GUA	68	-12.416	-36.841	6.106	1.00	0.00
ATOM	595	C2	GUA	68	-11.482	-37.616	5.448	1.00	0.00
ATOM	596	N2	GUA	68	-11.566	-37.712	4.120	1.00	0.00
ATOM	597	N3	GUA	68	-10.485	-38.250	6.076	1.00	0.00
ATOM	598	C4	GUA	68	-10.472	-38.032	7.418	1.00	0.00
ATOM	599	C3'	GUA	68	-6.076	-39.674	8.693	1.00	0.00
ATOM	600	C2'	GUA	68	-7.094	-38.630	8.219	1.00	0.00
ATOM	601	O3'	GUA	68	-5.014	-39.895	7.778	1.00	0.00
ATOM	602	P	THY	69	-3.933	-38.752	7.382	1.00	0.00
ATOM	603	OP1	THY	69	-2.838	-39.404	6.632	1.00	0.00
ATOM	604	OP2	THY	69	-3.627	-37.966	8.598	1.00	0.00
ATOM	605	O5'	THY	69	-4.753	-37.809	6.359	1.00	0.00
ATOM	606	C5'	THY	69	-5.405	-38.360	5.228	1.00	0.00
ATOM	607	C4'	THY	69	-6.456	-37.406	4.643	1.00	0.00
ATOM	608	O4'	THY	69	-7.521	-37.023	5.482	1.00	0.00
ATOM	609	C1'	THY	69	-8.046	-35.807	4.997	1.00	0.00
ATOM	610	N1	THY	69	-8.918	-35.178	6.022	1.00	0.00
ATOM	611	C6	THY	69	-8.548	-35.222	7.344	1.00	0.00
ATOM	612	C5	THY	69	-9.275	-34.591	8.297	1.00	0.00
ATOM	613	C7	THY	69	-8.743	-34.664	9.717	1.00	0.00
ATOM	614	C4	THY	69	-10.492	-33.873	7.969	1.00	0.00

411				412				
ATOM	615	O4	THY	69	-11.207	-33.270	8.765	1.00 0.00
ATOM	616	N3	THY	69	-10.825	-33.914	6.625	1.00 0.00
ATOM	617	C2	THY	69	-10.084	-34.521	5.622	1.00 0.00
ATOM	618	O2	THY	69	-10.461	-34.466	4.455	1.00 0.00
ATOM	619	C3'	THY	69	-5.865	-36.092	4.117	1.00 0.00
ATOM	620	C2'	THY	69	-6.744	-35.039	4.799	1.00 0.00
ATOM	621	O3'	THY	69	-5.944	-36.021	2.704	1.00 0.00
ATOM	622	P	THY	70	-5.179	-34.856	1.891	1.00 0.00
ATOM	623	OP1	THY	70	-4.644	-35.434	0.634	1.00 0.00
ATOM	624	OP2	THY	70	-4.245	-34.212	2.834	1.00 0.00
ATOM	625	O5'	THY	70	-6.342	-33.797	1.554	1.00 0.00
ATOM	626	C5'	THY	70	-7.384	-34.104	0.647	1.00 0.00
ATOM	627	C4'	THY	70	-8.490	-33.048	0.750	1.00 0.00
ATOM	628	O4'	THY	70	-8.957	-32.960	2.078	1.00 0.00
ATOM	629	C1'	THY	70	-9.581	-31.707	2.239	1.00 0.00
ATOM	630	N1	THY	70	-9.719	-31.386	3.683	1.00 0.00
ATOM	631	C6	THY	70	-8.681	-31.644	4.545	1.00 0.00
ATOM	632	C5	THY	70	-8.798	-31.402	5.873	1.00 0.00
ATOM	633	C7	THY	70	-7.585	-31.748	6.710	1.00 0.00
ATOM	634	C4	THY	70	-10.012	-30.853	6.443	1.00 0.00
ATOM	635	O4	THY	70	-10.188	-30.560	7.623	1.00 0.00
ATOM	636	N3	THY	70	-11.023	-30.664	5.517	1.00 0.00
ATOM	637	C2	THY	70	-10.921	-30.856	4.148	1.00 0.00
ATOM	638	O2	THY	70	-11.847	-30.535	3.408	1.00 0.00
ATOM	639	C3'	THY	70	-8.031	-31.624	0.400	1.00 0.00
ATOM	640	C2'	THY	70	-8.614	-30.762	1.531	1.00 0.00
ATOM	641	O3'	THY	70	-8.522	-31.283	-0.884	1.00 0.00
ATOM	642	P	ADE	71	-8.084	-29.927	-1.638	1.00 0.00
ATOM	643	OP1	ADE	71	-6.719	-29.558	-1.201	1.00 0.00
ATOM	644	OP2	ADE	71	-8.385	-30.065	-3.079	1.00 0.00
ATOM	645	O5'	ADE	71	-9.077	-28.839	-1.013	1.00 0.00
ATOM	646	C5'	ADE	71	-10.423	-28.710	-1.420	1.00 0.00
ATOM	647	C4'	ADE	71	-11.067	-27.598	-0.587	1.00 0.00
ATOM	648	O4'	ADE	71	-11.337	-28.061	0.740	1.00 0.00
ATOM	649	C1'	ADE	71	-11.022	-27.019	1.635	1.00 0.00
ATOM	650	N9	ADE	71	-10.777	-27.416	3.044	1.00 0.00
ATOM	651	C8	ADE	71	-9.630	-27.954	3.568	1.00 0.00
ATOM	652	N7	ADE	71	-9.569	-27.973	4.867	1.00 0.00
ATOM	653	C5	ADE	71	-10.780	-27.411	5.241	1.00 0.00
ATOM	654	C6	ADE	71	-11.331	-27.110	6.497	1.00 0.00
ATOM	655	N6	ADE	71	-10.686	-27.396	7.629	1.00 0.00
ATOM	656	N1	ADE	71	-12.529	-26.499	6.552	1.00 0.00
ATOM	657	C2	ADE	71	-13.151	-26.212	5.409	1.00 0.00
ATOM	658	N3	ADE	71	-12.741	-26.443	4.164	1.00 0.00
ATOM	659	C4	ADE	71	-11.527	-27.061	4.144	1.00 0.00
ATOM	660	C3'	ADE	71	-10.115	-26.389	-0.439	1.00 0.00
ATOM	661	C2'	ADE	71	-9.708	-26.585	1.009	1.00 0.00
ATOM	662	O3'	ADE	71	-10.815	-25.184	-0.618	1.00 0.00
ATOM	663	P	GUA	72	-10.116	-23.729	-0.677	1.00 0.00
ATOM	664	OP1	GUA	72	-9.798	-23.374	-2.075	1.00 0.00

413

414

ATOM	665	OP2	GUA	72	-9.081	-23.584	0.387	1.00	0.00
ATOM	666	O5'	GUA	72	-11.367	-22.869	-0.187	1.00	0.00
ATOM	667	C5'	GUA	72	-12.666	-23.026	-0.728	1.00	0.00
ATOM	668	C4'	GUA	72	-13.655	-22.421	0.268	1.00	0.00
ATOM	669	O4'	GUA	72	-13.589	-23.122	1.508	1.00	0.00
ATOM	670	C1'	GUA	72	-13.220	-22.266	2.578	1.00	0.00
ATOM	671	N9	GUA	72	-12.267	-22.946	3.496	1.00	0.00
ATOM	672	C8	GUA	72	-11.119	-23.616	3.163	1.00	0.00
ATOM	673	N7	GUA	72	-10.388	-24.001	4.169	1.00	0.00
ATOM	674	C5	GUA	72	-11.138	-23.608	5.273	1.00	0.00
ATOM	675	C6	GUA	72	-10.886	-23.801	6.665	1.00	0.00
ATOM	676	O6	GUA	72	-9.908	-24.332	7.188	1.00	0.00
ATOM	677	N1	GUA	72	-11.914	-23.315	7.466	1.00	0.00
ATOM	678	C2	GUA	72	-13.048	-22.692	6.984	1.00	0.00
ATOM	679	N2	GUA	72	-13.933	-22.237	7.872	1.00	0.00
ATOM	680	N3	GUA	72	-13.277	-22.488	5.678	1.00	0.00
ATOM	681	C4	GUA	72	-12.297	-22.979	4.873	1.00	0.00
ATOM	682	C3'	GUA	72	-13.270	-20.969	0.547	1.00	0.00
ATOM	683	C2'	GUA	72	-12.529	-21.102	1.877	1.00	0.00
ATOM	684	O3'	GUA	72	-14.437	-20.174	0.595	1.00	0.00
ATOM	685	P	GUA	73	-14.369	-18.563	0.666	1.00	0.00
ATOM	686	OP1	GUA	73	-13.086	-18.113	0.074	1.00	0.00
ATOM	687	OP2	GUA	73	-15.649	-18.019	0.164	1.00	0.00
ATOM	688	O5'	GUA	73	-14.306	-18.333	2.251	1.00	0.00
ATOM	689	C5'	GUA	73	-15.395	-18.696	3.074	1.00	0.00
ATOM	690	C4'	GUA	73	-14.994	-18.583	4.541	1.00	0.00
ATOM	691	O4'	GUA	73	-13.913	-19.453	4.830	1.00	0.00
ATOM	692	C1'	GUA	73	-13.105	-18.826	5.798	1.00	0.00
ATOM	693	N9	GUA	73	-11.776	-19.467	5.886	1.00	0.00
ATOM	694	C8	GUA	73	-10.875	-19.725	4.887	1.00	0.00
ATOM	695	N7	GUA	73	-9.810	-20.375	5.266	1.00	0.00
ATOM	696	C5	GUA	73	-10.002	-20.533	6.636	1.00	0.00
ATOM	697	C6	GUA	73	-9.170	-21.148	7.619	1.00	0.00
ATOM	698	O6	GUA	73	-8.077	-21.685	7.446	1.00	0.00
ATOM	699	N1	GUA	73	-9.730	-21.100	8.892	1.00	0.00
ATOM	700	C2	GUA	73	-10.951	-20.522	9.190	1.00	0.00
ATOM	701	N2	GUA	73	-11.343	-20.478	10.463	1.00	0.00
ATOM	702	N3	GUA	73	-11.726	-19.940	8.271	1.00	0.00
ATOM	703	C4	GUA	73	-11.199	-19.977	7.021	1.00	0.00
ATOM	704	C3'	GUA	73	-14.519	-17.171	4.928	1.00	0.00
ATOM	705	C2'	GUA	73	-13.038	-17.419	5.222	1.00	0.00
ATOM	706	O3'	GUA	73	-15.260	-16.764	6.065	1.00	0.00
ATOM	707	P	GUA	74	-15.067	-15.330	6.775	1.00	0.00
ATOM	708	OP1	GUA	74	-14.025	-14.565	6.053	1.00	0.00
ATOM	709	OP2	GUA	74	-16.403	-14.734	6.990	1.00	0.00
ATOM	710	O5'	GUA	74	-14.470	-15.772	8.202	1.00	0.00
ATOM	711	C5'	GUA	74	-15.246	-16.539	9.104	1.00	0.00
ATOM	712	C4'	GUA	74	-14.459	-16.838	10.382	1.00	0.00
ATOM	713	O4'	GUA	74	-13.262	-17.530	10.063	1.00	0.00
ATOM	714	C1'	GUA	74	-12.146	-16.892	10.652	1.00	0.00

415				416					
ATOM	715	N9	GUA	74	-10.967	-17.056	9.771	1.00	0.00
ATOM	716	C8	GUA	74	-10.865	-16.738	8.441	1.00	0.00
ATOM	717	N7	GUA	74	-9.745	-17.100	7.883	1.00	0.00
ATOM	718	C5	GUA	74	-9.043	-17.700	8.920	1.00	0.00
ATOM	719	C6	GUA	74	-7.768	-18.340	8.908	1.00	0.00
ATOM	720	O6	GUA	74	-7.024	-18.520	7.949	1.00	0.00
ATOM	721	N1	GUA	74	-7.400	-18.819	10.158	1.00	0.00
ATOM	722	C2	GUA	74	-8.187	-18.736	11.284	1.00	0.00
ATOM	723	N2	GUA	74	-7.678	-19.208	12.423	1.00	0.00
ATOM	724	N3	GUA	74	-9.398	-18.160	11.296	1.00	0.00
ATOM	725	C4	GUA	74	-9.772	-17.663	10.085	1.00	0.00
ATOM	726	C3'	GUA	74	-14.051	-15.564	11.133	1.00	0.00
ATOM	727	C2'	GUA	74	-12.581	-15.431	10.735	1.00	0.00
ATOM	728	O3'	GUA	74	-14.256	-15.787	12.517	1.00	0.00
ATOM	729	P	THY	75	-13.895	-14.697	13.650	1.00	0.00
ATOM	730	OP1	THY	75	-13.555	-13.410	13.001	1.00	0.00
ATOM	731	OP2	THY	75	-14.940	-14.746	14.695	1.00	0.00
ATOM	732	O5'	THY	75	-12.546	-15.336	14.248	1.00	0.00
ATOM	733	C5'	THY	75	-12.563	-16.623	14.834	1.00	0.00
ATOM	734	C4'	THY	75	-11.150	-17.033	15.244	1.00	0.00
ATOM	735	O4'	THY	75	-10.286	-16.962	14.124	1.00	0.00
ATOM	736	C1'	THY	75	-9.056	-16.380	14.498	1.00	0.00
ATOM	737	N1	THY	75	-8.425	-15.781	13.288	1.00	0.00
ATOM	738	C6	THY	75	-9.147	-14.945	12.465	1.00	0.00
ATOM	739	C5	THY	75	-8.674	-14.569	11.248	1.00	0.00
ATOM	740	C7	THY	75	-9.534	-13.622	10.431	1.00	0.00
ATOM	741	C4	THY	75	-7.407	-15.058	10.747	1.00	0.00
ATOM	742	O4	THY	75	-6.942	-14.862	9.626	1.00	0.00
ATOM	743	N3	THY	75	-6.710	-15.815	11.664	1.00	0.00
ATOM	744	C2	THY	75	-7.149	-16.203	12.919	1.00	0.00
ATOM	745	O2	THY	75	-6.424	-16.890	13.633	1.00	0.00
ATOM	746	C3'	THY	75	-10.551	-16.118	16.321	1.00	0.00
ATOM	747	C2'	THY	75	-9.482	-15.347	15.540	1.00	0.00
ATOM	748	O3'	THY	75	-10.038	-16.959	17.341	1.00	0.00
ATOM	749	P	THY	76	-9.541	-16.405	18.770	1.00	0.00
ATOM	750	OP1	THY	76	-9.535	-17.548	19.715	1.00	0.00
ATOM	751	OP2	THY	76	-10.293	-15.177	19.106	1.00	0.00
ATOM	752	O5'	THY	76	-8.020	-16.008	18.443	1.00	0.00
ATOM	753	C5'	THY	76	-7.042	-17.012	18.297	1.00	0.00
ATOM	754	C4'	THY	76	-5.787	-16.484	17.612	1.00	0.00
ATOM	755	O4'	THY	76	-6.048	-15.942	16.337	1.00	0.00
ATOM	756	C1'	THY	76	-4.858	-15.292	15.956	1.00	0.00
ATOM	757	N1	THY	76	-5.057	-14.439	14.752	1.00	0.00
ATOM	758	C6	THY	76	-6.136	-13.588	14.678	1.00	0.00
ATOM	759	C5	THY	76	-6.358	-12.835	13.572	1.00	0.00
ATOM	760	C7	THY	76	-7.587	-11.945	13.614	1.00	0.00
ATOM	761	C4	THY	76	-5.473	-12.887	12.426	1.00	0.00
ATOM	762	O4	THY	76	-5.591	-12.231	11.393	1.00	0.00
ATOM	763	N3	THY	76	-4.436	-13.793	12.559	1.00	0.00
ATOM	764	C2	THY	76	-4.182	-14.581	13.670	1.00	0.00

(210)

特開2003-135087

417

418

ATOM	765	O2	THY	76	-3.228	-15.359	13.664	1.00	0.00
ATOM	766	C3'	THY	76	-5.078	-15.359	18.371	1.00	0.00
ATOM	767	C2'	THY	76	-4.552	-14.485	17.217	1.00	0.00
ATOM	768	O3'	THY	76	-4.105	-15.970	19.204	1.00	0.00
ATOM	769	P	ADE	77	-2.931	-15.158	19.951	1.00	0.00
ATOM	770	OP1	ADE	77	-2.396	-16.013	21.033	1.00	0.00
ATOM	771	OP2	ADE	77	-3.403	-13.789	20.252	1.00	0.00
ATOM	772	O5'	ADE	77	-1.826	-15.092	18.789	1.00	0.00
ATOM	773	C5'	ADE	77	-1.381	-16.279	18.165	1.00	0.00
ATOM	774	C4'	ADE	77	-0.471	-15.956	16.986	1.00	0.00
ATOM	775	O4'	ADE	77	-1.141	-15.208	15.989	1.00	0.00
ATOM	776	C1'	ADE	77	-0.204	-14.356	15.363	1.00	0.00
ATOM	777	N9	ADE	77	-0.920	-13.269	14.659	1.00	0.00
ATOM	778	C8	ADE	77	-1.999	-12.546	15.105	1.00	0.00
ATOM	779	N7	ADE	77	-2.536	-11.770	14.208	1.00	0.00
ATOM	780	C5	ADE	77	-1.728	-11.960	13.095	1.00	0.00
ATOM	781	C6	ADE	77	-1.752	-11.416	11.799	1.00	0.00
ATOM	782	N6	ADE	77	-2.696	-10.553	11.421	1.00	0.00
ATOM	783	N1	ADE	77	-0.773	-11.748	10.934	1.00	0.00
ATOM	784	C2	ADE	77	0.172	-12.595	11.337	1.00	0.00
ATOM	785	N3	ADE	77	0.277	-13.216	12.511	1.00	0.00
ATOM	786	C4	ADE	77	-0.714	-12.842	13.365	1.00	0.00
ATOM	787	C3'	ADE	77	0.765	-15.140	17.376	1.00	0.00
ATOM	788	C2'	ADE	77	0.583	-13.851	16.568	1.00	0.00
ATOM	789	O3'	ADE	77	1.878	-15.911	16.971	1.00	0.00
ATOM	790	P	GUA	78	3.358	-15.653	17.529	1.00	0.00
ATOM	791	OP1	GUA	78	4.181	-16.859	17.249	1.00	0.00
ATOM	792	OP2	GUA	78	3.249	-15.137	18.908	1.00	0.00
ATOM	793	O5'	GUA	78	3.847	-14.453	16.602	1.00	0.00
ATOM	794	C5'	GUA	78	4.263	-14.659	15.273	1.00	0.00
ATOM	795	C4'	GUA	78	4.378	-13.312	14.561	1.00	0.00
ATOM	796	O4'	GUA	78	3.113	-12.764	14.268	1.00	0.00
ATOM	797	C1'	GUA	78	3.368	-11.456	13.811	1.00	0.00
ATOM	798	N9	GUA	78	2.146	-10.630	13.781	1.00	0.00
ATOM	799	C8	GUA	78	1.274	-10.346	14.801	1.00	0.00
ATOM	800	N7	GUA	78	0.274	-9.586	14.450	1.00	0.00
ATOM	801	C5	GUA	78	0.500	-9.338	13.099	1.00	0.00
ATOM	802	C6	GUA	78	-0.252	-8.571	12.156	1.00	0.00
ATOM	803	O6	GUA	78	-1.276	-7.918	12.350	1.00	0.00
ATOM	804	N1	GUA	78	0.298	-8.609	10.878	1.00	0.00
ATOM	805	C2	GUA	78	1.454	-9.286	10.547	1.00	0.00
ATOM	806	N2	GUA	78	1.871	-9.235	9.283	1.00	0.00
ATOM	807	N3	GUA	78	2.175	-9.985	11.434	1.00	0.00
ATOM	808	C4	GUA	78	1.644	-9.975	12.684	1.00	0.00
ATOM	809	C3'	GUA	78	5.039	-12.205	15.391	1.00	0.00
ATOM	810	C2'	GUA	78	4.387	-10.939	14.822	1.00	0.00
ATOM	811	O3'	GUA	78	6.442	-12.277	15.236	1.00	0.00
ATOM	812	P	GUA	79	7.434	-11.142	15.797	1.00	0.00
ATOM	813	OP1	GUA	79	6.736	-10.424	16.885	1.00	0.00
ATOM	814	OP2	GUA	79	8.726	-11.799	16.104	1.00	0.00

(211)

特開2003-135087

419

420

ATOM	815	05'	GUA	79	7.585	-10.153	14.527	1.00	0.00
ATOM	816	C5'	GUA	79	7.956	-10.639	13.247	1.00	0.00
ATOM	817	C4'	GUA	79	7.540	-9.665	12.134	1.00	0.00
ATOM	818	04'	GUA	79	6.149	-9.381	12.212	1.00	0.00
ATOM	819	C1'	GUA	79	5.926	-8.003	11.989	1.00	0.00
ATOM	820	N9	GUA	79	4.664	-7.558	12.633	1.00	0.00
ATOM	821	C8	GUA	79	4.306	-7.670	13.953	1.00	0.00
ATOM	822	N7	GUA	79	3.136	-7.178	14.242	1.00	0.00
ATOM	823	C5	GUA	79	2.680	-6.682	13.028	1.00	0.00
ATOM	824	C6	GUA	79	1.466	-5.999	12.722	1.00	0.00
ATOM	825	06	GUA	79	0.547	-5.705	13.483	1.00	0.00
ATOM	826	N1	GUA	79	1.366	-5.664	11.377	1.00	0.00
ATOM	827	C2	GUA	79	2.325	-5.953	10.431	1.00	0.00
ATOM	828	N2	GUA	79	2.078	-5.565	9.177	1.00	0.00
ATOM	829	N3	GUA	79	3.475	-6.583	10.716	1.00	0.00
ATOM	830	C4	GUA	79	3.598	-6.920	12.031	1.00	0.00
ATOM	831	C3'	GUA	79	8.262	-8.311	12.187	1.00	0.00
ATOM	832	C2'	GUA	79	7.146	-7.384	12.667	1.00	0.00
ATOM	833	03'	GUA	79	8.722	-8.001	10.881	1.00	0.00
ATOM	834	P	GUA	80	9.556	-6.662	10.541	1.00	0.00
ATOM	835	OP1	GUA	80	10.090	-6.099	11.801	1.00	0.00
ATOM	836	OP2	GUA	80	10.475	-6.963	9.421	1.00	0.00
ATOM	837	05'	GUA	80	8.410	-5.672	9.994	1.00	0.00
ATOM	838	C5'	GUA	80	7.797	-5.898	8.738	1.00	0.00
ATOM	839	C4'	GUA	80	6.754	-4.817	8.446	1.00	0.00
ATOM	840	04'	GUA	80	5.745	-4.846	9.438	1.00	0.00
ATOM	841	C1'	GUA	80	5.385	-3.521	9.754	1.00	0.00
ATOM	842	N9	GUA	80	4.706	-3.459	11.065	1.00	0.00
ATOM	843	C8	GUA	80	5.139	-3.930	12.279	1.00	0.00
ATOM	844	N7	GUA	80	4.277	-3.785	13.246	1.00	0.00
ATOM	845	C5	GUA	80	3.192	-3.167	12.634	1.00	0.00
ATOM	846	C6	GUA	80	1.929	-2.778	13.173	1.00	0.00
ATOM	847	06	GUA	80	1.510	-2.927	14.320	1.00	0.00
ATOM	848	N1	GUA	80	1.118	-2.170	12.223	1.00	0.00
ATOM	849	C2	GUA	80	1.464	-1.963	10.905	1.00	0.00
ATOM	850	N2	GUA	80	0.589	-1.318	10.129	1.00	0.00
ATOM	851	N3	GUA	80	2.637	-2.352	10.389	1.00	0.00
ATOM	852	C4	GUA	80	3.453	-2.947	11.302	1.00	0.00
ATOM	853	C3'	GUA	80	7.340	-3.395	8.484	1.00	0.00
ATOM	854	C2'	GUA	80	6.743	-2.826	9.767	1.00	0.00
ATOM	855	03'	GUA	80	6.887	-2.645	7.375	1.00	0.00
ATOM	856	05'	CYT	81	-7.071	2.287	14.237	1.00	0.00
ATOM	857	C5'	CYT	81	-6.467	3.159	13.306	1.00	0.00
ATOM	858	C4'	CYT	81	-5.402	2.419	12.493	1.00	0.00
ATOM	859	04'	CYT	81	-4.468	1.782	13.341	1.00	0.00
ATOM	860	C1'	CYT	81	-3.812	0.812	12.555	1.00	0.00
ATOM	861	N1	CYT	81	-3.105	-0.189	13.384	1.00	0.00
ATOM	862	C6	CYT	81	-3.724	-0.731	14.481	1.00	0.00
ATOM	863	C5	CYT	81	-3.169	-1.745	15.179	1.00	0.00
ATOM	864	C4	CYT	81	-1.885	-2.212	14.735	1.00	0.00

421				422				
ATOM	865	N4	CYT	81	-1.240	-3.180	15.389	1.00 0.00
ATOM	866	N3	CYT	81	-1.307	-1.703	13.642	1.00 0.00
ATOM	867	C2	CYT	81	-1.896	-0.706	12.928	1.00 0.00
ATOM	868	O2	CYT	81	-1.360	-0.295	11.901	1.00 0.00
ATOM	869	C3'	CYT	81	-5.962	1.286	11.618	1.00 0.00
ATOM	870	C2'	CYT	81	-4.980	0.140	11.849	1.00 0.00
ATOM	871	O3'	CYT	81	-6.009	1.719	10.268	1.00 0.00
ATOM	872	P	CYT	82	-6.569	0.784	9.076	1.00 0.00
ATOM	873	OP1	CYT	82	-7.424	-0.264	9.677	1.00 0.00
ATOM	874	OP2	CYT	82	-7.117	1.667	8.023	1.00 0.00
ATOM	875	O5'	CYT	82	-5.238	0.069	8.500	1.00 0.00
ATOM	876	C5'	CYT	82	-4.268	0.788	7.757	1.00 0.00
ATOM	877	C4'	CYT	82	-3.205	-0.162	7.187	1.00 0.00
ATOM	878	O4'	CYT	82	-2.495	-0.797	8.233	1.00 0.00
ATOM	879	C1'	CYT	82	-2.251	-2.155	7.916	1.00 0.00
ATOM	880	N1	CYT	82	-2.216	-2.918	9.189	1.00 0.00
ATOM	881	C6	CYT	82	-3.223	-2.719	10.095	1.00 0.00
ATOM	882	C5	CYT	82	-3.245	-3.338	11.290	1.00 0.00
ATOM	883	C4	CYT	82	-2.152	-4.222	11.578	1.00 0.00
ATOM	884	N4	CYT	82	-2.124	-4.898	12.726	1.00 0.00
ATOM	885	N3	CYT	82	-1.168	-4.426	10.687	1.00 0.00
ATOM	886	C2	CYT	82	-1.171	-3.800	9.473	1.00 0.00
ATOM	887	O2	CYT	82	-0.272	-4.025	8.665	1.00 0.00
ATOM	888	C3'	CYT	82	-3.818	-1.279	6.330	1.00 0.00
ATOM	889	C2'	CYT	82	-3.483	-2.550	7.102	1.00 0.00
ATOM	890	O3'	CYT	82	-3.250	-1.235	5.030	1.00 0.00
ATOM	891	P	CYT	83	-3.817	-2.119	3.800	1.00 0.00
ATOM	892	OP1	CYT	83	-3.574	-1.373	2.546	1.00 0.00
ATOM	893	OP2	CYT	83	-5.186	-2.571	4.134	1.00 0.00
ATOM	894	O5'	CYT	83	-2.854	-3.407	3.813	1.00 0.00
ATOM	895	C5'	CYT	83	-1.524	-3.339	3.328	1.00 0.00
ATOM	896	C4'	CYT	83	-0.785	-4.630	3.689	1.00 0.00
ATOM	897	O4'	CYT	83	-0.911	-4.843	5.077	1.00 0.00
ATOM	898	C1'	CYT	83	-0.732	-6.212	5.352	1.00 0.00
ATOM	899	N1	CYT	83	-1.424	-6.527	6.629	1.00 0.00
ATOM	900	C6	CYT	83	-2.678	-6.025	6.863	1.00 0.00
ATOM	901	C5	CYT	83	-3.289	-6.160	8.060	1.00 0.00
ATOM	902	C4	CYT	83	-2.574	-6.884	9.072	1.00 0.00
ATOM	903	N4	CYT	83	-3.119	-7.062	10.276	1.00 0.00
ATOM	904	N3	CYT	83	-1.360	-7.405	8.831	1.00 0.00
ATOM	905	C2	CYT	83	-0.759	-7.248	7.616	1.00 0.00
ATOM	906	O2	CYT	83	0.344	-7.747	7.403	1.00 0.00
ATOM	907	C3'	CYT	83	-1.368	-5.886	3.025	1.00 0.00
ATOM	908	C2'	CYT	83	-1.396	-6.910	4.167	1.00 0.00
ATOM	909	O3'	CYT	83	-0.542	-6.269	1.935	1.00 0.00
ATOM	910	P	THY	84	-0.869	-7.543	0.991	1.00 0.00
ATOM	911	OP1	THY	84	-0.186	-7.345	-0.306	1.00 0.00
ATOM	912	OP2	THY	84	-2.326	-7.801	1.026	1.00 0.00
ATOM	913	O5'	THY	84	-0.128	-8.749	1.760	1.00 0.00
ATOM	914	C5'	THY	84	1.280	-8.771	1.895	1.00 0.00

(213)

特開2003-135087

423

424

ATOM	915	C4'	THY	84	1.690	-9.865	2.882	1.00	0.00
ATOM	916	O4'	THY	84	1.036	-9.666	4.121	1.00	0.00
ATOM	917	C1'	THY	84	0.851	-10.914	4.750	1.00	0.00
ATOM	918	N1	THY	84	-0.215	-10.793	5.787	1.00	0.00
ATOM	919	C6	THY	84	-1.437	-10.259	5.450	1.00	0.00
ATOM	920	C5	THY	84	-2.412	-10.088	6.375	1.00	0.00
ATOM	921	C7	THY	84	-3.731	-9.507	5.897	1.00	0.00
ATOM	922	C4	THY	84	-2.210	-10.450	7.760	1.00	0.00
ATOM	923	O4	THY	84	-3.044	-10.315	8.649	1.00	0.00
ATOM	924	N3	THY	84	-0.957	-10.979	8.036	1.00	0.00
ATOM	925	C2	THY	84	0.060	-11.169	7.108	1.00	0.00
ATOM	926	O2	THY	84	1.133	-11.647	7.463	1.00	0.00
ATOM	927	C3'	THY	84	1.307	-11.278	2.410	1.00	0.00
ATOM	928	C2'	THY	84	0.430	-11.787	3.564	1.00	0.00
ATOM	929	O3'	THY	84	2.504	-12.007	2.172	1.00	0.00
ATOM	930	P	ADE	85	2.527	-13.548	1.680	1.00	0.00
ATOM	931	OP1	ADE	85	1.340	-13.808	0.836	1.00	0.00
ATOM	932	OP2	ADE	85	3.876	-13.862	1.156	1.00	0.00
ATOM	933	O5'	ADE	85	2.338	-14.316	3.079	1.00	0.00
ATOM	934	C5'	ADE	85	3.236	-14.100	4.151	1.00	0.00
ATOM	935	C4'	ADE	85	2.700	-14.742	5.430	1.00	0.00
ATOM	936	O4'	ADE	85	1.508	-14.145	5.899	1.00	0.00
ATOM	937	C1'	ADE	85	0.813	-15.122	6.646	1.00	0.00
ATOM	938	N9	ADE	85	-0.576	-14.679	6.887	1.00	0.00
ATOM	939	C8	ADE	85	-1.452	-14.129	5.986	1.00	0.00
ATOM	940	N7	ADE	85	-2.555	-13.677	6.515	1.00	0.00
ATOM	941	C5	ADE	85	-2.412	-13.976	7.865	1.00	0.00
ATOM	942	C6	ADE	85	-3.230	-13.749	8.990	1.00	0.00
ATOM	943	N6	ADE	85	-4.407	-13.123	8.905	1.00	0.00
ATOM	944	N1	ADE	85	-2.819	-14.202	10.189	1.00	0.00
ATOM	945	C2	ADE	85	-1.656	-14.839	10.268	1.00	0.00
ATOM	946	N3	ADE	85	-0.782	-15.091	9.299	1.00	0.00
ATOM	947	C4	ADE	85	-1.224	-14.623	8.100	1.00	0.00
ATOM	948	C3'	ADE	85	2.367	-16.225	5.259	1.00	0.00
ATOM	949	C2'	ADE	85	0.898	-16.293	5.679	1.00	0.00
ATOM	950	O3'	ADE	85	3.238	-16.927	6.121	1.00	0.00
ATOM	951	P	ADE	86	3.385	-18.521	6.100	1.00	0.00
ATOM	952	OP1	ADE	86	2.627	-19.050	4.941	1.00	0.00
ATOM	953	OP2	ADE	86	4.826	-18.827	6.242	1.00	0.00
ATOM	954	O5'	ADE	86	2.629	-18.948	7.451	1.00	0.00
ATOM	955	C5'	ADE	86	3.210	-18.669	8.708	1.00	0.00
ATOM	956	C4'	ADE	86	2.310	-19.107	9.860	1.00	0.00
ATOM	957	O4'	ADE	86	1.072	-18.426	9.819	1.00	0.00
ATOM	958	C1'	ADE	86	0.014	-19.357	9.824	1.00	0.00
ATOM	959	N9	ADE	86	-1.123	-18.752	9.096	1.00	0.00
ATOM	960	C8	ADE	86	-1.256	-18.536	7.750	1.00	0.00
ATOM	961	N7	ADE	86	-2.320	-17.861	7.411	1.00	0.00
ATOM	962	C5	ADE	86	-2.954	-17.626	8.625	1.00	0.00
ATOM	963	C6	ADE	86	-4.148	-16.964	8.984	1.00	0.00
ATOM	964	N6	ADE	86	-4.954	-16.360	8.109	1.00	0.00

(214)

特開2003-135087

425

426

ATOM	965	N1	ADE	86	-4.472	-16.896	10.284	1.00	0.00
ATOM	966	C2	ADE	86	-3.662	-17.430	11.187	1.00	0.00
ATOM	967	N3	ADE	86	-2.503	-18.046	10.989	1.00	0.00
ATOM	968	C4	ADE	86	-2.212	-18.136	9.662	1.00	0.00
ATOM	969	C3'	ADE	86	1.996	-20.606	9.817	1.00	0.00
ATOM	970	C2'	ADE	86	0.619	-20.597	9.161	1.00	0.00
ATOM	971	O3'	ADE	86	1.947	-21.077	11.150	1.00	0.00
ATOM	972	P	CYT	87	2.226	-22.617	11.539	1.00	0.00
ATOM	973	OP1	CYT	87	3.411	-22.631	12.430	1.00	0.00
ATOM	974	OP2	CYT	87	2.235	-23.441	10.304	1.00	0.00
ATOM	975	O5'	CYT	87	0.903	-22.963	12.403	1.00	0.00
ATOM	976	C5'	CYT	87	0.815	-22.583	13.766	1.00	0.00
ATOM	977	C4'	CYT	87	-0.551	-21.990	14.148	1.00	0.00
ATOM	978	O4'	CYT	87	-1.132	-21.227	13.098	1.00	0.00
ATOM	979	C1'	CYT	87	-2.540	-21.388	13.123	1.00	0.00
ATOM	980	N1	CYT	87	-3.148	-21.132	11.787	1.00	0.00
ATOM	981	C6	CYT	87	-2.511	-21.562	10.653	1.00	0.00
ATOM	982	C5	CYT	87	-3.033	-21.369	9.420	1.00	0.00
ATOM	983	C4	CYT	87	-4.290	-20.687	9.350	1.00	0.00
ATOM	984	N4	CYT	87	-4.810	-20.374	8.164	1.00	0.00
ATOM	985	N3	CYT	87	-4.924	-20.281	10.458	1.00	0.00
ATOM	986	C2	CYT	87	-4.383	-20.487	11.694	1.00	0.00
ATOM	987	O2	CYT	87	-4.976	-20.081	12.690	1.00	0.00
ATOM	988	C3'	CYT	87	-1.606	-23.017	14.575	1.00	0.00
ATOM	989	C2'	CYT	87	-2.661	-22.863	13.486	1.00	0.00
ATOM	990	O3'	CYT	87	-2.083	-22.623	15.853	1.00	0.00
ATOM	991	P	CYT	88	-3.072	-23.534	16.742	1.00	0.00
ATOM	992	OP1	CYT	88	-2.887	-24.947	16.350	1.00	0.00
ATOM	993	OP2	CYT	88	-2.895	-23.140	18.158	1.00	0.00
ATOM	994	O5'	CYT	88	-4.536	-23.065	16.267	1.00	0.00
ATOM	995	C5'	CYT	88	-5.085	-21.827	16.678	1.00	0.00
ATOM	996	C4'	CYT	88	-6.461	-21.623	16.040	1.00	0.00
ATOM	997	O4'	CYT	88	-6.355	-21.615	14.638	1.00	0.00
ATOM	998	C1'	CYT	88	-7.570	-22.058	14.078	1.00	0.00
ATOM	999	N1	CYT	88	-7.286	-22.560	12.716	1.00	0.00
ATOM	1000	C6	CYT	88	-6.181	-23.338	12.506	1.00	0.00
ATOM	1001	C5	CYT	88	-5.767	-23.661	11.265	1.00	0.00
ATOM	1002	C4	CYT	88	-6.547	-23.148	10.172	1.00	0.00
ATOM	1003	N4	CYT	88	-6.158	-23.328	8.910	1.00	0.00
ATOM	1004	N3	CYT	88	-7.687	-22.477	10.391	1.00	0.00
ATOM	1005	C2	CYT	88	-8.104	-22.196	11.655	1.00	0.00
ATOM	1006	O2	CYT	88	-9.185	-21.647	11.839	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.468	-22.739	16.356	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.961	-23.210	14.989	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.472	-22.160	17.175	1.00	0.00
ATOM	1010	P	CYT	89	-9.733	-22.978	17.744	1.00	0.00
ATOM	1011	OP1	CYT	89	-10.189	-22.285	18.972	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.375	-24.411	17.801	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.851	-22.767	16.605	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.496	-21.517	16.427	1.00	0.00

(215)

特開2003-135087

427

428

ATOM	1015	C4'	CYT	89	-12.500	-21.596	15.272	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.831	-21.952	14.081	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.702	-22.685	13.247	1.00	0.00
ATOM	1018	N1	CYT	89	-11.872	-23.529	12.352	1.00	0.00
ATOM	1019	C6	CYT	89	-10.831	-24.241	12.888	1.00	0.00
ATOM	1020	C5	CYT	89	-9.923	-24.870	12.116	1.00	0.00
ATOM	1021	C4	CYT	89	-10.103	-24.767	10.694	1.00	0.00
ATOM	1022	N4	CYT	89	-9.235	-25.337	9.855	1.00	0.00
ATOM	1023	N3	CYT	89	-11.150	-24.111	10.171	1.00	0.00
ATOM	1024	C2	CYT	89	-12.063	-23.492	10.974	1.00	0.00
ATOM	1025	O2	CYT	89	-13.033	-22.929	10.471	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.580	-22.668	15.492	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.479	-23.543	14.242	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.842	-22.037	15.649	1.00	0.00
ATOM	1029	P	THY	90	-16.205	-22.861	15.937	1.00	0.00
ATOM	1030	OP1	THY	90	-17.177	-21.942	16.568	1.00	0.00
ATOM	1031	OP2	THY	90	-15.853	-24.133	16.608	1.00	0.00
ATOM	1032	O5'	THY	90	-16.728	-23.204	14.452	1.00	0.00
ATOM	1033	C5'	THY	90	-17.146	-22.183	13.566	1.00	0.00
ATOM	1034	C4'	THY	90	-17.319	-22.750	12.153	1.00	0.00
ATOM	1035	O4'	THY	90	-16.108	-23.325	11.707	1.00	0.00
ATOM	1036	C1'	THY	90	-16.412	-24.332	10.769	1.00	0.00
ATOM	1037	N1	THY	90	-15.234	-25.225	10.611	1.00	0.00
ATOM	1038	C6	THY	90	-14.663	-25.800	11.722	1.00	0.00
ATOM	1039	C5	THY	90	-13.551	-26.564	11.627	1.00	0.00
ATOM	1040	C7	THY	90	-13.025	-27.168	12.916	1.00	0.00
ATOM	1041	C4	THY	90	-12.905	-26.799	10.353	1.00	0.00
ATOM	1042	O4	THY	90	-11.895	-27.475	10.190	1.00	0.00
ATOM	1043	N3	THY	90	-13.524	-26.176	9.280	1.00	0.00
ATOM	1044	C2	THY	90	-14.685	-25.419	9.342	1.00	0.00
ATOM	1045	O2	THY	90	-15.186	-24.973	8.314	1.00	0.00
ATOM	1046	C3'	THY	90	-18.374	-23.866	12.058	1.00	0.00
ATOM	1047	C2'	THY	90	-17.593	-25.033	11.440	1.00	0.00
ATOM	1048	O3'	THY	90	-19.446	-23.411	11.249	1.00	0.00
ATOM	1049	P	ADE	91	-20.798	-24.268	11.031	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.015	-25.122	12.219	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.863	-23.345	10.581	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.405	-25.217	9.793	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.269	-24.690	8.488	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.633	-25.726	7.558	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.328	-26.065	7.972	1.00	0.00
ATOM	1056	C1'	ADE	91	-17.994	-27.260	7.305	1.00	0.00
ATOM	1057	N9	ADE	91	-16.833	-27.899	7.947	1.00	0.00
ATOM	1058	C8	ADE	91	-16.631	-28.118	9.285	1.00	0.00
ATOM	1059	N7	ADE	91	-15.497	-28.703	9.566	1.00	0.00
ATOM	1060	C5	ADE	91	-14.919	-28.900	8.314	1.00	0.00
ATOM	1061	C6	ADE	91	-13.704	-29.479	7.892	1.00	0.00
ATOM	1062	N6	ADE	91	-12.796	-29.961	8.745	1.00	0.00
ATOM	1063	N1	ADE	91	-13.453	-29.557	6.572	1.00	0.00
ATOM	1064	C2	ADE	91	-14.347	-29.076	5.713	1.00	0.00

(216)

特開2003-135087

429

430

ATOM	1065	N3	ADE	91	-15.507	-28.489	5.979	1.00	0.00
ATOM	1066	C4	ADE	91	-15.738	-28.431	7.318	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.381	-27.067	7.496	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.246	-28.099	7.518	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.171	-27.072	6.317	1.00	0.00
ATOM	1070	P	ADE	92	-21.990	-28.364	5.802	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.089	-27.893	4.932	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.284	-29.238	6.959	1.00	0.00
ATOM	1073	O5'	ADE	92	-20.898	-29.100	4.873	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.341	-28.449	3.746	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.277	-29.330	3.087	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.221	-29.591	3.999	1.00	0.00
ATOM	1077	C1'	ADE	92	-17.803	-30.930	3.849	1.00	0.00
ATOM	1078	N9	ADE	92	-17.099	-31.383	5.072	1.00	0.00
ATOM	1079	C8	ADE	92	-17.552	-31.350	6.367	1.00	0.00
ATOM	1080	N7	ADE	92	-16.693	-31.770	7.253	1.00	0.00
ATOM	1081	C5	ADE	92	-15.586	-32.111	6.487	1.00	0.00
ATOM	1082	C6	ADE	92	-14.321	-32.634	6.820	1.00	0.00
ATOM	1083	N6	ADE	92	-13.975	-32.901	8.081	1.00	0.00
ATOM	1084	N1	ADE	92	-13.438	-32.875	5.833	1.00	0.00
ATOM	1085	C2	ADE	92	-13.799	-32.613	4.579	1.00	0.00
ATOM	1086	N3	ADE	92	-14.954	-32.124	4.134	1.00	0.00
ATOM	1087	C4	ADE	92	-15.820	-31.886	5.154	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.829	-30.699	2.663	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.144	-31.635	3.659	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.455	-30.942	1.317	1.00	0.00
ATOM	1091	P	CYT	93	-20.003	-32.210	0.481	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.028	-32.911	1.285	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.319	-31.763	-0.894	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.700	-33.149	0.419	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.607	-32.832	-0.423	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.467	-33.815	-0.153	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.134	-33.754	1.215	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.602	-34.994	1.617	1.00	0.00
ATOM	1099	N1	CYT	93	-15.783	-35.144	3.082	1.00	0.00
ATOM	1100	C6	CYT	93	-16.971	-34.788	3.671	1.00	0.00
ATOM	1101	C5	CYT	93	-17.158	-34.883	5.006	1.00	0.00
ATOM	1102	C4	CYT	93	-16.052	-35.366	5.781	1.00	0.00
ATOM	1103	N4	CYT	93	-16.113	-35.404	7.113	1.00	0.00
ATOM	1104	N3	CYT	93	-14.906	-35.736	5.197	1.00	0.00
ATOM	1105	C2	CYT	93	-14.738	-35.647	3.849	1.00	0.00
ATOM	1106	O2	CYT	93	-13.680	-36.004	3.338	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.859	-35.276	-0.409	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.452	-36.016	0.864	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.165	-35.798	-1.524	1.00	0.00

END

HEADER 000000

REMARK 0.00511 1.64003 0.02487 0.01729 2.20422 1.68349
0.00000

(217)

特開2003-135087

431

432

REMARK	2.66689	0.26937	0.48061	1.13155	0.78535		
REMARK	0.01044	0.00452	0.00480	0.01989	0.00865		
REMARK	122	119	3	0	0	0	
REMARK	1378	305	460	273	340		
REMARK	0.03510	0.18673	0.03455	0.03715	0.18673	0.08009	
REMARK	0.80167	0.06524					
REMARK	1	1	0	0	0	0	
ATOM	1	N	GLU	1	20.214	-16.188	22.658 1.00 0.00
ATOM	2	CA	GLU	1	18.855	-16.290	22.098 1.00 0.00
ATOM	3	CB	GLU	1	18.790	-15.633	20.713 1.00 0.00
ATOM	4	CG	GLU	1	19.232	-14.165	20.750 1.00 0.00
ATOM	5	CD	GLU	1	19.052	-13.523	19.380 1.00 0.00
ATOM	6	OE1	GLU	1	17.879	-13.377	18.976 1.00 0.00
ATOM	7	OE2	GLU	1	20.091	-13.214	18.757 1.00 0.00
ATOM	8	C	GLU	1	18.421	-17.754	22.030 1.00 0.00
ATOM	9	O	GLU	1	19.182	-18.636	22.424 1.00 0.00
ATOM	10	N	LYS	2	17.206	-17.999	21.528 1.00 0.00
ATOM	11	CA	LYS	2	16.624	-19.323	21.359 1.00 0.00
ATOM	12	CB	LYS	2	15.579	-19.599	22.451 1.00 0.00
ATOM	13	CG	LYS	2	16.203	-19.654	23.853 1.00 0.00
ATOM	14	CD	LYS	2	15.229	-20.224	24.898 1.00 0.00
ATOM	15	CE	LYS	2	13.954	-19.379	25.039 1.00 0.00
ATOM	16	NZ	LYS	2	13.081	-19.884	26.116 1.00 0.00
ATOM	17	C	LYS	2	16.001	-19.389	19.963 1.00 0.00
ATOM	18	O	LYS	2	16.408	-20.200	19.135 1.00 0.00
ATOM	19	N	HIS	3	15.017	-18.519	19.717 1.00 0.00
ATOM	20	CA	HIS	3	14.287	-18.395	18.464 1.00 0.00
ATOM	21	CB	HIS	3	13.388	-19.622	18.226 1.00 0.00
ATOM	22	CG	HIS	3	12.408	-19.983	19.323 1.00 0.00
ATOM	23	ND1	HIS	3	11.437	-20.956	19.129 1.00 0.00
ATOM	24	CE1	HIS	3	10.726	-21.054	20.264 1.00 0.00
ATOM	25	NE2	HIS	3	11.150	-20.218	21.214 1.00 0.00
ATOM	26	CD2	HIS	3	12.209	-19.543	20.615 1.00 0.00
ATOM	27	C	HIS	3	13.477	-17.099	18.514 1.00 0.00
ATOM	28	O	HIS	3	13.088	-16.670	19.598 1.00 0.00
ATOM	29	N	ARG	4	13.223	-16.472	17.357 1.00 0.00
ATOM	30	CA	ARG	4	12.441	-15.242	17.312 1.00 0.00
ATOM	31	CB	ARG	4	12.579	-14.518	15.965 1.00 0.00
ATOM	32	CG	ARG	4	14.005	-14.034	15.676 1.00 0.00
ATOM	33	CD	ARG	4	13.977	-12.878	14.663 1.00 0.00
ATOM	34	NE	ARG	4	13.251	-13.237	13.430 1.00 0.00
ATOM	35	CZ	ARG	4	12.534	-12.399	12.652 1.00 0.00
ATOM	36	NH1	ARG	4	12.467	-11.086	12.911 1.00 0.00

433

434

ATOM	37	NH2	ARG	4	11.880	-12.885	11.588	1.00	0.00
ATOM	38	C	ARG	4	10.978	-15.590	17.574	1.00	0.00
ATOM	39	O	ARG	4	10.375	-15.098	18.526	1.00	0.00
ATOM	40	N	ALA	5	10.416	-16.451	16.718	1.00	0.00
ATOM	41	CA	ALA	5	9.040	-16.891	16.839	1.00	0.00
ATOM	42	CB	ALA	5	8.581	-17.537	15.532	1.00	0.00
ATOM	43	C	ALA	5	8.906	-17.863	18.009	1.00	0.00
ATOM	44	O	ALA	5	9.848	-18.576	18.348	1.00	0.00
ATOM	45	N	ARG	6	7.720	-17.875	18.614	1.00	0.00
ATOM	46	CA	ARG	6	7.330	-18.697	19.748	1.00	0.00
ATOM	47	CB	ARG	6	6.611	-17.762	20.727	1.00	0.00
ATOM	48	CG	ARG	6	5.943	-18.399	21.951	1.00	0.00
ATOM	49	CD	ARG	6	5.135	-17.283	22.626	1.00	0.00
ATOM	50	NE	ARG	6	4.393	-17.750	23.804	1.00	0.00
ATOM	51	CZ	ARG	6	3.487	-17.001	24.458	1.00	0.00
ATOM	52	NH1	ARG	6	2.864	-17.495	25.534	1.00	0.00
ATOM	53	NH2	ARG	6	3.206	-15.758	24.038	1.00	0.00
ATOM	54	C	ARG	6	6.419	-19.820	19.251	1.00	0.00
ATOM	55	O	ARG	6	6.587	-20.972	19.649	1.00	0.00
ATOM	56	N	LYS	7	5.459	-19.470	18.385	1.00	0.00
ATOM	57	CA	LYS	7	4.481	-20.373	17.794	1.00	0.00
ATOM	58	CB	LYS	7	3.082	-19.986	18.303	1.00	0.00
ATOM	59	CG	LYS	7	1.910	-20.757	17.667	1.00	0.00
ATOM	60	CD	LYS	7	2.004	-22.279	17.870	1.00	0.00
ATOM	61	CE	LYS	7	0.786	-23.026	17.305	1.00	0.00
ATOM	62	NZ	LYS	7	-0.453	-22.742	18.058	1.00	0.00
ATOM	63	C	LYS	7	4.539	-20.342	16.265	1.00	0.00
ATOM	64	O	LYS	7	4.357	-21.383	15.639	1.00	0.00
ATOM	65	N	ARG	8	4.762	-19.171	15.653	1.00	0.00
ATOM	66	CA	ARG	8	4.774	-19.057	14.198	1.00	0.00
ATOM	67	CB	ARG	8	4.762	-17.587	13.753	1.00	0.00
ATOM	68	CG	ARG	8	3.467	-16.874	14.164	1.00	0.00
ATOM	69	CD	ARG	8	2.282	-17.254	13.275	1.00	0.00
ATOM	70	NE	ARG	8	1.023	-17.198	14.024	1.00	0.00
ATOM	71	CZ	ARG	8	-0.191	-17.050	13.476	1.00	0.00
ATOM	72	NH1	ARG	8	-0.313	-16.910	12.157	1.00	0.00
ATOM	73	NH2	ARG	8	-1.281	-17.041	14.250	1.00	0.00
ATOM	74	C	ARG	8	5.932	-19.802	13.533	1.00	0.00
ATOM	75	O	ARG	8	7.071	-19.335	13.526	1.00	0.00
ATOM	76	N	GLN	9	5.617	-20.953	12.937	1.00	0.00
ATOM	77	CA	GLN	9	6.537	-21.792	12.198	1.00	0.00
ATOM	78	CB	GLN	9	5.941	-23.209	12.144	1.00	0.00
ATOM	79	CG	GLN	9	6.912	-24.312	11.708	1.00	0.00
ATOM	80	CD	GLN	9	6.204	-25.658	11.509	1.00	0.00
ATOM	81	OE1	GLN	9	6.662	-26.494	10.736	1.00	0.00
ATOM	82	NE2	GLN	9	5.075	-25.886	12.181	1.00	0.00
ATOM	83	C	GLN	9	6.681	-21.133	10.822	1.00	0.00
ATOM	84	O	GLN	9	6.045	-21.549	9.856	1.00	0.00
ATOM	85	N	ALA	10	7.504	-20.081	10.741	1.00	0.00
ATOM	86	CA	ALA	10	7.738	-19.336	9.510	1.00	0.00

435				436				
ATOM	87	CB	ALA	10	8.727	-18.199	9.776	1.00 0.00
ATOM	88	C	ALA	10	8.252	-20.271	8.418	1.00 0.00
ATOM	89	O	ALA	10	9.210	-21.012	8.645	1.00 0.00
ATOM	90	N	TRP	11	7.614	-20.252	7.243	1.00 0.00
ATOM	91	CA	TRP	11	8.009	-21.116	6.139	1.00 0.00
ATOM	92	CB	TRP	11	6.882	-21.201	5.104	1.00 0.00
ATOM	93	CG	TRP	11	5.667	-21.972	5.534	1.00 0.00
ATOM	94	CD1	TRP	11	4.767	-21.588	6.468	1.00 0.00
ATOM	95	NE1	TRP	11	3.781	-22.541	6.602	1.00 0.00
ATOM	96	CE2	TRP	11	4.004	-23.606	5.752	1.00 0.00
ATOM	97	CZ2	TRP	11	3.310	-24.802	5.516	1.00 0.00
ATOM	98	CH2	TRP	11	3.808	-25.704	4.567	1.00 0.00
ATOM	99	CZ3	TRP	11	4.984	-25.403	3.860	1.00 0.00
ATOM	100	CE3	TRP	11	5.670	-24.200	4.104	1.00 0.00
ATOM	101	CD2	TRP	11	5.202	-23.269	5.057	1.00 0.00
ATOM	102	C	TRP	11	9.328	-20.649	5.512	1.00 0.00
ATOM	103	O	TRP	11	9.610	-19.453	5.451	1.00 0.00
ATOM	104	N	LEU	12	10.131	-21.615	5.050	1.00 0.00
ATOM	105	CA	LEU	12	11.431	-21.428	4.408	1.00 0.00
ATOM	106	CB	LEU	12	12.565	-21.736	5.400	1.00 0.00
ATOM	107	CG	LEU	12	12.642	-20.774	6.599	1.00 0.00
ATOM	108	CD1	LEU	12	13.659	-21.315	7.609	1.00 0.00
ATOM	109	CD2	LEU	12	13.066	-19.363	6.175	1.00 0.00
ATOM	110	C	LEU	12	11.503	-22.375	3.206	1.00 0.00
ATOM	111	O	LEU	12	10.664	-23.268	3.089	1.00 0.00
ATOM	112	N	TRP	13	12.490	-22.195	2.311	1.00 0.00
ATOM	113	CA	TRP	13	12.631	-23.026	1.114	1.00 0.00
ATOM	114	CB	TRP	13	13.820	-22.639	0.233	1.00 0.00
ATOM	115	CG	TRP	13	15.135	-22.543	0.924	1.00 0.00
ATOM	116	CD1	TRP	13	15.715	-21.368	1.199	1.00 0.00
ATOM	117	NE1	TRP	13	16.914	-21.561	1.849	1.00 0.00
ATOM	118	CE2	TRP	13	17.166	-22.909	2.021	1.00 0.00
ATOM	119	CZ2	TRP	13	18.225	-23.616	2.610	1.00 0.00
ATOM	120	CH2	TRP	13	18.187	-25.019	2.628	1.00 0.00
ATOM	121	CZ3	TRP	13	17.097	-25.697	2.054	1.00 0.00
ATOM	122	CE3	TRP	13	16.043	-24.979	1.463	1.00 0.00
ATOM	123	CD2	TRP	13	16.043	-23.568	1.432	1.00 0.00
ATOM	124	C	TRP	13	12.677	-24.519	1.384	1.00 0.00
ATOM	125	O	TRP	13	12.361	-25.268	0.477	1.00 0.00
ATOM	126	N	GLU	14	13.049	-25.009	2.568	1.00 0.00
ATOM	127	CA	GLU	14	13.019	-26.457	2.726	1.00 0.00
ATOM	128	CB	GLU	14	13.627	-26.869	4.073	1.00 0.00
ATOM	129	CG	GLU	14	13.573	-28.385	4.320	1.00 0.00
ATOM	130	CD	GLU	14	14.272	-29.213	3.243	1.00 0.00
ATOM	131	OE1	GLU	14	13.764	-30.321	2.957	1.00 0.00
ATOM	132	OE2	GLU	14	15.311	-28.735	2.739	1.00 0.00
ATOM	133	C	GLU	14	11.570	-26.898	2.536	1.00 0.00
ATOM	134	O	GLU	14	11.259	-27.702	1.658	1.00 0.00
ATOM	135	N	GLU	15	10.675	-26.322	3.333	1.00 0.00
ATOM	136	CA	GLU	15	9.263	-26.606	3.245	1.00 0.00

(220)

特開2003-135087

437

438

ATOM	137	CB	GLU	15	8.549	-25.947	4.425	1.00	0.00
ATOM	138	CG	GLU	15	9.164	-26.340	5.773	1.00	0.00
ATOM	139	CD	GLU	15	8.233	-25.933	6.901	1.00	0.00
ATOM	140	OE1	GLU	15	7.925	-24.727	6.974	1.00	0.00
ATOM	141	OE2	GLU	15	7.827	-26.831	7.675	1.00	0.00
ATOM	142	C	GLU	15	8.690	-26.142	1.901	1.00	0.00
ATOM	143	O	GLU	15	8.101	-26.942	1.180	1.00	0.00
ATOM	144	N	ASP	16	8.848	-24.861	1.556	1.00	0.00
ATOM	145	CA	ASP	16	8.325	-24.277	0.323	1.00	0.00
ATOM	146	CB	ASP	16	8.646	-22.773	0.261	1.00	0.00
ATOM	147	CG	ASP	16	7.415	-21.911	0.504	1.00	0.00
ATOM	148	OD1	ASP	16	6.747	-22.123	1.537	1.00	0.00
ATOM	149	OD2	ASP	16	7.155	-21.030	-0.344	1.00	0.00
ATOM	150	C	ASP	16	8.829	-24.958	-0.950	1.00	0.00
ATOM	151	O	ASP	16	8.037	-25.270	-1.837	1.00	0.00
ATOM	152	N	LYS	17	10.143	-25.171	-1.063	1.00	0.00
ATOM	153	CA	LYS	17	10.736	-25.779	-2.246	1.00	0.00
ATOM	154	CB	LYS	17	12.268	-25.581	-2.255	1.00	0.00
ATOM	155	CG	LYS	17	12.890	-25.675	-3.654	1.00	0.00
ATOM	156	CD	LYS	17	12.756	-24.387	-4.486	1.00	0.00
ATOM	157	CE	LYS	17	13.513	-23.205	-3.857	1.00	0.00
ATOM	158	NZ	LYS	17	13.643	-22.068	-4.788	1.00	0.00
ATOM	159	C	LYS	17	10.264	-27.237	-2.358	1.00	0.00
ATOM	160	O	LYS	17	9.893	-27.675	-3.450	1.00	0.00
ATOM	161	N	ASN	18	10.238	-27.981	-1.239	1.00	0.00
ATOM	162	CA	ASN	18	9.756	-29.362	-1.230	1.00	0.00
ATOM	163	CB	ASN	18	9.859	-29.971	0.173	1.00	0.00
ATOM	164	CG	ASN	18	11.279	-30.347	0.582	1.00	0.00
ATOM	165	OD1	ASN	18	12.243	-30.025	-0.109	1.00	0.00
ATOM	166	ND2	ASN	18	11.407	-31.031	1.719	1.00	0.00
ATOM	167	C	ASN	18	8.292	-29.407	-1.666	1.00	0.00
ATOM	168	O	ASN	18	7.923	-30.190	-2.538	1.00	0.00
ATOM	169	N	LEU	19	7.467	-28.557	-1.047	1.00	0.00
ATOM	170	CA	LEU	19	6.041	-28.430	-1.300	1.00	0.00
ATOM	171	CB	LEU	19	5.482	-27.302	-0.419	1.00	0.00
ATOM	172	CG	LEU	19	3.990	-27.031	-0.637	1.00	0.00
ATOM	173	CD1	LEU	19	3.166	-28.297	-0.403	1.00	0.00
ATOM	174	CD2	LEU	19	3.540	-25.915	0.312	1.00	0.00
ATOM	175	C	LEU	19	5.796	-28.177	-2.784	1.00	0.00
ATOM	176	O	LEU	19	5.016	-28.893	-3.408	1.00	0.00
ATOM	177	N	ARG	20	6.480	-27.173	-3.348	1.00	0.00
ATOM	178	CA	ARG	20	6.396	-26.818	-4.757	1.00	0.00
ATOM	179	CB	ARG	20	7.416	-25.700	-5.042	1.00	0.00
ATOM	180	CG	ARG	20	7.409	-25.111	-6.464	1.00	0.00
ATOM	181	CD	ARG	20	7.931	-26.029	-7.583	1.00	0.00
ATOM	182	NE	ARG	20	9.145	-26.771	-7.200	1.00	0.00
ATOM	183	CZ	ARG	20	10.410	-26.331	-7.284	1.00	0.00
ATOM	184	NH1	ARG	20	10.678	-25.097	-7.726	1.00	0.00
ATOM	185	NH2	ARG	20	11.410	-27.146	-6.925	1.00	0.00
ATOM	186	C	ARG	20	6.643	-28.071	-5.595	1.00	0.00

(221)

特開2003-135087

439

440

ATOM	187	O	ARG	20	5.855	-28.398	-6.481	1.00	0.00
ATOM	188	N	SER	21	7.741	-28.778	-5.307	1.00	0.00
ATOM	189	CA	SER	21	8.102	-29.996	-6.017	1.00	0.00
ATOM	190	CB	SER	21	9.460	-30.499	-5.520	1.00	0.00
ATOM	191	OG	SER	21	10.401	-29.442	-5.561	1.00	0.00
ATOM	192	C	SER	21	7.006	-31.059	-5.890	1.00	0.00
ATOM	193	O	SER	21	6.695	-31.741	-6.864	1.00	0.00
ATOM	194	N	GLY	22	6.418	-31.200	-4.700	1.00	0.00
ATOM	195	CA	GLY	22	5.355	-32.153	-4.431	1.00	0.00
ATOM	196	C	GLY	22	4.121	-31.872	-5.276	1.00	0.00
ATOM	197	O	GLY	22	3.643	-32.762	-5.979	1.00	0.00
ATOM	198	N	VAL	23	3.614	-30.637	-5.218	1.00	0.00
ATOM	199	CA	VAL	23	2.452	-30.231	-5.994	1.00	0.00
ATOM	200	CB	VAL	23	2.018	-28.800	-5.630	1.00	0.00
ATOM	201	CG1	VAL	23	0.854	-28.363	-6.527	1.00	0.00
ATOM	202	CG2	VAL	23	1.554	-28.732	-4.168	1.00	0.00
ATOM	203	C	VAL	23	2.758	-30.403	-7.484	1.00	0.00
ATOM	204	O	VAL	23	1.904	-30.862	-8.234	1.00	0.00
ATOM	205	N	ARG	24	3.975	-30.062	-7.926	1.00	0.00
ATOM	206	CA	ARG	24	4.347	-30.227	-9.323	1.00	0.00
ATOM	207	CB	ARG	24	5.723	-29.592	-9.579	1.00	0.00
ATOM	208	CG	ARG	24	6.219	-29.742	-11.026	1.00	0.00
ATOM	209	CD	ARG	24	5.264	-29.125	-12.058	1.00	0.00
ATOM	210	NE	ARG	24	5.772	-29.282	-13.429	1.00	0.00
ATOM	211	CZ	ARG	24	6.663	-28.481	-14.037	1.00	0.00
ATOM	212	NH1	ARG	24	7.017	-28.726	-15.305	1.00	0.00
ATOM	213	NH2	ARG	24	7.202	-27.440	-13.387	1.00	0.00
ATOM	214	C	ARG	24	4.297	-31.707	-9.731	1.00	0.00
ATOM	215	O	ARG	24	3.849	-32.020	-10.832	1.00	0.00
ATOM	216	N	LYS	25	4.754	-32.618	-8.859	1.00	0.00
ATOM	217	CA	LYS	25	4.762	-34.048	-9.139	1.00	0.00
ATOM	218	CB	LYS	25	5.614	-34.802	-8.104	1.00	0.00
ATOM	219	CG	LYS	25	7.126	-34.684	-8.314	1.00	0.00
ATOM	220	CD	LYS	25	7.815	-35.588	-7.280	1.00	0.00
ATOM	221	CE	LYS	25	9.344	-35.500	-7.331	1.00	0.00
ATOM	222	NZ	LYS	25	9.843	-34.219	-6.801	1.00	0.00
ATOM	223	C	LYS	25	3.368	-34.683	-9.135	1.00	0.00
ATOM	224	O	LYS	25	2.963	-35.291	-10.124	1.00	0.00
ATOM	225	N	TYR	26	2.673	-34.602	-7.996	1.00	0.00
ATOM	226	CA	TYR	26	1.392	-35.268	-7.765	1.00	0.00
ATOM	227	CB	TYR	26	1.382	-35.787	-6.315	1.00	0.00
ATOM	228	CG	TYR	26	2.733	-36.302	-5.847	1.00	0.00
ATOM	229	CD1	TYR	26	3.358	-37.358	-6.536	1.00	0.00
ATOM	230	CE1	TYR	26	4.619	-37.821	-6.124	1.00	0.00
ATOM	231	CZ	TYR	26	5.259	-37.231	-5.021	1.00	0.00
ATOM	232	OH	TYR	26	6.486	-37.671	-4.622	1.00	0.00
ATOM	233	CE2	TYR	26	4.635	-36.180	-4.328	1.00	0.00
ATOM	234	CD2	TYR	26	3.375	-35.715	-4.739	1.00	0.00
ATOM	235	C	TYR	26	0.153	-34.416	-8.027	1.00	0.00
ATOM	236	O	TYR	26	-0.953	-34.956	-8.036	1.00	0.00

(222)

特開2003-135087

441					442				
ATOM	237	N	GLY	27	0.312	-33.106	-8.213	1.00	0.00
ATOM	238	CA	GLY	27	-0.806	-32.197	-8.405	1.00	0.00
ATOM	239	C	GLY	27	-1.282	-31.732	-7.030	1.00	0.00
ATOM	240	O	GLY	27	-0.895	-32.295	-6.004	1.00	0.00
ATOM	241	N	GLU	28	-2.125	-30.698	-6.995	1.00	0.00
ATOM	242	CA	GLU	28	-2.647	-30.175	-5.741	1.00	0.00
ATOM	243	CB	GLU	28	-3.260	-28.792	-5.993	1.00	0.00
ATOM	244	CG	GLU	28	-3.358	-27.969	-4.704	1.00	0.00
ATOM	245	CD	GLU	28	-3.691	-26.510	-4.973	1.00	0.00
ATOM	246	OE1	GLU	28	-3.118	-25.943	-5.930	1.00	0.00
ATOM	247	OE2	GLU	28	-4.504	-25.945	-4.210	1.00	0.00
ATOM	248	C	GLU	28	-3.621	-31.185	-5.124	1.00	0.00
ATOM	249	O	GLU	28	-4.032	-32.140	-5.782	1.00	0.00
ATOM	250	N	GLY	29	-3.979	-30.997	-3.852	1.00	0.00
ATOM	251	CA	GLY	29	-4.884	-31.895	-3.149	1.00	0.00
ATOM	252	C	GLY	29	-4.266	-33.275	-2.941	1.00	0.00
ATOM	253	O	GLY	29	-4.947	-34.292	-3.045	1.00	0.00
ATOM	254	N	ASN	30	-2.964	-33.295	-2.636	1.00	0.00
ATOM	255	CA	ASN	30	-2.177	-34.494	-2.373	1.00	0.00
ATOM	256	CB	ASN	30	-1.286	-34.808	-3.589	1.00	0.00
ATOM	257	CG	ASN	30	-2.044	-35.473	-4.734	1.00	0.00
ATOM	258	OD1	ASN	30	-1.978	-36.691	-4.884	1.00	0.00
ATOM	259	ND2	ASN	30	-2.744	-34.695	-5.558	1.00	0.00
ATOM	260	C	ASN	30	-1.333	-34.227	-1.125	1.00	0.00
ATOM	261	O	ASN	30	-0.186	-34.660	-1.044	1.00	0.00
ATOM	262	N	TRP	31	-1.888	-33.497	-0.150	1.00	0.00
ATOM	263	CA	TRP	31	-1.166	-33.137	1.063	1.00	0.00
ATOM	264	CB	TRP	31	-1.930	-32.123	1.914	1.00	0.00
ATOM	265	CG	TRP	31	-2.751	-31.153	1.129	1.00	0.00
ATOM	266	CD1	TRP	31	-4.100	-31.145	1.059	1.00	0.00
ATOM	267	NE1	TRP	31	-4.516	-30.123	0.234	1.00	0.00
ATOM	268	CE2	TRP	31	-3.445	-29.418	-0.268	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.350	-28.316	-1.128	1.00	0.00
ATOM	270	CH2	TRP	31	-2.082	-27.820	-1.456	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.930	-28.425	-0.933	1.00	0.00
ATOM	272	CE3	TRP	31	-1.036	-29.532	-0.072	1.00	0.00
ATOM	273	CD2	TRP	31	-2.298	-30.055	0.286	1.00	0.00
ATOM	274	C	TRP	31	-0.714	-34.371	1.838	1.00	0.00
ATOM	275	O	TRP	31	0.397	-34.370	2.357	1.00	0.00
ATOM	276	N	SER	32	-1.534	-35.428	1.901	1.00	0.00
ATOM	277	CA	SER	32	-1.159	-36.663	2.582	1.00	0.00
ATOM	278	CB	SER	32	-2.320	-37.664	2.516	1.00	0.00
ATOM	279	OG	SER	32	-1.974	-38.882	3.148	1.00	0.00
ATOM	280	C	SER	32	0.124	-37.225	1.954	1.00	0.00
ATOM	281	O	SER	32	1.113	-37.473	2.644	1.00	0.00
ATOM	282	N	LYS	33	0.116	-37.415	0.628	1.00	0.00
ATOM	283	CA	LYS	33	1.272	-37.922	-0.098	1.00	0.00
ATOM	284	CB	LYS	33	0.974	-37.978	-1.603	1.00	0.00
ATOM	285	CG	LYS	33	-0.035	-39.059	-2.018	1.00	0.00
ATOM	286	CD	LYS	33	0.380	-40.499	-1.670	1.00	0.00

443					444				
ATOM	287	CE	LYS	33	1.848	-40.834	-1.978	1.00	0.00
ATOM	288	NZ	LYS	33	2.223	-40.545	-3.375	1.00	0.00
ATOM	289	C	LYS	33	2.485	-37.029	0.162	1.00	0.00
ATOM	290	O	LYS	33	3.554	-37.521	0.516	1.00	0.00
ATOM	291	N	ILE	34	2.308	-35.718	-0.014	1.00	0.00
ATOM	292	CA	ILE	34	3.332	-34.703	0.182	1.00	0.00
ATOM	293	CB	ILE	34	2.728	-33.330	-0.173	1.00	0.00
ATOM	294	CG2	ILE	34	3.529	-32.150	0.380	1.00	0.00
ATOM	295	CG1	ILE	34	2.588	-33.241	-1.706	1.00	0.00
ATOM	296	CD1	ILE	34	1.743	-32.058	-2.191	1.00	0.00
ATOM	297	C	ILE	34	3.950	-34.816	1.584	1.00	0.00
ATOM	298	O	ILE	34	5.172	-34.790	1.706	1.00	0.00
ATOM	299	N	LEU	35	3.132	-34.969	2.634	1.00	0.00
ATOM	300	CA	LEU	35	3.594	-35.129	4.011	1.00	0.00
ATOM	301	CB	LEU	35	2.401	-35.266	4.974	1.00	0.00
ATOM	302	CG	LEU	35	1.705	-33.936	5.287	1.00	0.00
ATOM	303	CD1	LEU	35	0.291	-34.191	5.821	1.00	0.00
ATOM	304	CD2	LEU	35	2.487	-33.133	6.333	1.00	0.00
ATOM	305	C	LEU	35	4.481	-36.369	4.131	1.00	0.00
ATOM	306	O	LEU	35	5.517	-36.329	4.792	1.00	0.00
ATOM	307	N	LEU	36	4.078	-37.478	3.499	1.00	0.00
ATOM	308	CA	LEU	36	4.848	-38.712	3.556	1.00	0.00
ATOM	309	CB	LEU	36	4.022	-39.898	3.025	1.00	0.00
ATOM	310	CG	LEU	36	3.248	-40.677	4.106	1.00	0.00
ATOM	311	CD1	LEU	36	4.188	-41.466	5.029	1.00	0.00
ATOM	312	CD2	LEU	36	2.317	-39.790	4.939	1.00	0.00
ATOM	313	C	LEU	36	6.185	-38.573	2.824	1.00	0.00
ATOM	314	O	LEU	36	7.226	-38.919	3.385	1.00	0.00
ATOM	315	N	HIS	37	6.164	-38.082	1.581	1.00	0.00
ATOM	316	CA	HIS	37	7.357	-37.909	0.766	1.00	0.00
ATOM	317	CB	HIS	37	6.966	-37.463	-0.649	1.00	0.00
ATOM	318	CG	HIS	37	6.298	-38.541	-1.464	1.00	0.00
ATOM	319	ND1	HIS	37	6.947	-39.712	-1.824	1.00	0.00
ATOM	320	CE1	HIS	37	6.080	-40.447	-2.540	1.00	0.00
ATOM	321	NE2	HIS	37	4.894	-39.852	-2.689	1.00	0.00
ATOM	322	CD2	HIS	37	5.039	-38.647	-2.005	1.00	0.00
ATOM	323	C	HIS	37	8.337	-36.917	1.395	1.00	0.00
ATOM	324	O	HIS	37	9.488	-37.266	1.647	1.00	0.00
ATOM	325	N	TYR	38	7.882	-35.684	1.635	1.00	0.00
ATOM	326	CA	TYR	38	8.674	-34.613	2.206	1.00	0.00
ATOM	327	CB	TYR	38	8.373	-33.312	1.457	1.00	0.00
ATOM	328	CG	TYR	38	8.459	-33.431	-0.055	1.00	0.00
ATOM	329	CD1	TYR	38	7.288	-33.653	-0.797	1.00	0.00
ATOM	330	CE1	TYR	38	7.346	-33.763	-2.193	1.00	0.00
ATOM	331	CZ	TYR	38	8.574	-33.646	-2.862	1.00	0.00
ATOM	332	OH	TYR	38	8.615	-33.747	-4.224	1.00	0.00
ATOM	333	CE2	TYR	38	9.751	-33.425	-2.125	1.00	0.00
ATOM	334	CD2	TYR	38	9.695	-33.321	-0.723	1.00	0.00
ATOM	335	C	TYR	38	8.317	-34.521	3.684	1.00	0.00
ATOM	336	O	TYR	38	7.229	-34.076	4.034	1.00	0.00

445					446				
ATOM	337	N	LYS	39	9.227	-34.965	4.550	1.00	0.00
ATOM	338	CA	LYS	39	9.018	-34.978	5.986	1.00	0.00
ATOM	339	CB	LYS	39	9.823	-36.136	6.595	1.00	0.00
ATOM	340	CG	LYS	39	9.437	-37.456	5.905	1.00	0.00
ATOM	341	CD	LYS	39	10.073	-38.665	6.601	1.00	0.00
ATOM	342	CE	LYS	39	9.916	-39.944	5.764	1.00	0.00
ATOM	343	NZ	LYS	39	8.508	-40.242	5.437	1.00	0.00
ATOM	344	C	LYS	39	9.344	-33.604	6.577	1.00	0.00
ATOM	345	O	LYS	39	10.457	-33.368	7.042	1.00	0.00
ATOM	346	N	PHE	40	8.352	-32.703	6.546	1.00	0.00
ATOM	347	CA	PHE	40	8.429	-31.339	7.052	1.00	0.00
ATOM	348	CB	PHE	40	7.096	-30.625	6.785	1.00	0.00
ATOM	349	CG	PHE	40	6.657	-30.494	5.338	1.00	0.00
ATOM	350	CD1	PHE	40	5.958	-31.537	4.708	1.00	0.00
ATOM	351	CE1	PHE	40	5.554	-31.414	3.369	1.00	0.00
ATOM	352	CZ	PHE	40	5.838	-30.240	2.646	1.00	0.00
ATOM	353	CE2	PHE	40	6.528	-29.194	3.278	1.00	0.00
ATOM	354	CD2	PHE	40	6.938	-29.321	4.616	1.00	0.00
ATOM	355	C	PHE	40	8.710	-31.309	8.560	1.00	0.00
ATOM	356	O	PHE	40	8.664	-32.339	9.230	1.00	0.00
ATOM	357	N	ASN	41	8.987	-30.112	9.098	1.00	0.00
ATOM	358	CA	ASN	41	9.271	-29.915	10.517	1.00	0.00
ATOM	359	CB	ASN	41	9.600	-28.445	10.819	1.00	0.00
ATOM	360	CG	ASN	41	10.717	-27.892	9.943	1.00	0.00
ATOM	361	OD1	ASN	41	11.894	-28.101	10.221	1.00	0.00
ATOM	362	ND2	ASN	41	10.347	-27.171	8.885	1.00	0.00
ATOM	363	C	ASN	41	8.084	-30.374	11.368	1.00	0.00
ATOM	364	O	ASN	41	8.217	-31.282	12.185	1.00	0.00
ATOM	365	N	ASN	42	6.924	-29.738	11.170	1.00	0.00
ATOM	366	CA	ASN	42	5.694	-30.040	11.891	1.00	0.00
ATOM	367	CB	ASN	42	5.764	-29.432	13.302	1.00	0.00
ATOM	368	CG	ASN	42	4.476	-29.643	14.095	1.00	0.00
ATOM	369	OD1	ASN	42	3.794	-28.685	14.447	1.00	0.00
ATOM	370	ND2	ASN	42	4.141	-30.899	14.394	1.00	0.00
ATOM	371	C	ASN	42	4.528	-29.486	11.072	1.00	0.00
ATOM	372	O	ASN	42	3.998	-28.422	11.389	1.00	0.00
ATOM	373	N	ARG	43	4.146	-30.201	10.007	1.00	0.00
ATOM	374	CA	ARG	43	3.077	-29.801	9.102	1.00	0.00
ATOM	375	CB	ARG	43	3.649	-29.534	7.702	1.00	0.00
ATOM	376	CG	ARG	43	4.718	-28.433	7.707	1.00	0.00
ATOM	377	CD	ARG	43	4.134	-27.096	8.151	1.00	0.00
ATOM	378	NE	ARG	43	5.139	-26.033	8.121	1.00	0.00
ATOM	379	CZ	ARG	43	4.913	-24.803	8.600	1.00	0.00
ATOM	380	NH1	ARG	43	5.871	-23.882	8.511	1.00	0.00
ATOM	381	NH2	ARG	43	3.730	-24.509	9.157	1.00	0.00
ATOM	382	C	ARG	43	1.947	-30.822	9.052	1.00	0.00
ATOM	383	O	ARG	43	2.097	-31.963	9.483	1.00	0.00
ATOM	384	N	THR	44	0.811	-30.366	8.519	1.00	0.00
ATOM	385	CA	THR	44	-0.427	-31.100	8.353	1.00	0.00
ATOM	386	CB	THR	44	-1.373	-30.768	9.519	1.00	0.00

447					448				
ATOM	387	CG2	THR	44	-0.776	-31.128	10.882	1.00	0.00
ATOM	388	OG1	THR	44	-1.700	-29.387	9.484	1.00	0.00
ATOM	389	C	THR	44	-1.088	-30.632	7.060	1.00	0.00
ATOM	390	O	THR	44	-0.660	-29.642	6.463	1.00	0.00
ATOM	391	N	SER	45	-2.156	-31.326	6.655	1.00	0.00
ATOM	392	CA	SER	45	-2.945	-30.984	5.484	1.00	0.00
ATOM	393	CB	SER	45	-4.166	-31.908	5.433	1.00	0.00
ATOM	394	OG	SER	45	-3.759	-33.241	5.653	1.00	0.00
ATOM	395	C	SER	45	-3.375	-29.519	5.579	1.00	0.00
ATOM	396	O	SER	45	-3.286	-28.778	4.604	1.00	0.00
ATOM	397	N	VAL	46	-3.824	-29.110	6.774	1.00	0.00
ATOM	398	CA	VAL	46	-4.251	-27.755	7.079	1.00	0.00
ATOM	399	CB	VAL	46	-4.728	-27.667	8.541	1.00	0.00
ATOM	400	CG1	VAL	46	-5.132	-26.234	8.909	1.00	0.00
ATOM	401	CG2	VAL	46	-5.933	-28.590	8.773	1.00	0.00
ATOM	402	C	VAL	46	-3.116	-26.777	6.769	1.00	0.00
ATOM	403	O	VAL	46	-3.285	-25.906	5.919	1.00	0.00
ATOM	404	N	MET	47	-1.972	-26.930	7.448	1.00	0.00
ATOM	405	CA	MET	47	-0.819	-26.055	7.257	1.00	0.00
ATOM	406	CB	MET	47	0.380	-26.591	8.048	1.00	0.00
ATOM	407	CG	MET	47	0.177	-26.632	9.566	1.00	0.00
ATOM	408	SD	MET	47	0.355	-25.031	10.384	1.00	0.00
ATOM	409	CE	MET	47	0.320	-25.572	12.108	1.00	0.00
ATOM	410	C	MET	47	-0.434	-25.919	5.777	1.00	0.00
ATOM	411	O	MET	47	-0.274	-24.809	5.268	1.00	0.00
ATOM	412	N	LEU	48	-0.277	-27.060	5.097	1.00	0.00
ATOM	413	CA	LEU	48	0.108	-27.125	3.693	1.00	0.00
ATOM	414	CB	LEU	48	0.257	-28.589	3.263	1.00	0.00
ATOM	415	CG	LEU	48	1.488	-29.224	3.927	1.00	0.00
ATOM	416	CD1	LEU	48	1.353	-30.740	4.009	1.00	0.00
ATOM	417	CD2	LEU	48	2.764	-28.938	3.134	1.00	0.00
ATOM	418	C	LEU	48	-0.883	-26.369	2.812	1.00	0.00
ATOM	419	O	LEU	48	-0.471	-25.514	2.025	1.00	0.00
ATOM	420	N	LYS	49	-2.181	-26.671	2.954	1.00	0.00
ATOM	421	CA	LYS	49	-3.225	-25.998	2.196	1.00	0.00
ATOM	422	CB	LYS	49	-4.621	-26.382	2.693	1.00	0.00
ATOM	423	CG	LYS	49	-5.126	-27.693	2.117	1.00	0.00
ATOM	424	CD	LYS	49	-6.579	-27.934	2.527	1.00	0.00
ATOM	425	CE	LYS	49	-6.811	-27.890	4.046	1.00	0.00
ATOM	426	NZ	LYS	49	-7.221	-26.545	4.524	1.00	0.00
ATOM	427	C	LYS	49	-3.104	-24.498	2.382	1.00	0.00
ATOM	428	O	LYS	49	-3.032	-23.774	1.402	1.00	0.00
ATOM	429	N	ASP	50	-3.111	-24.041	3.635	1.00	0.00
ATOM	430	CA	ASP	50	-3.050	-22.632	3.983	1.00	0.00
ATOM	431	CB	ASP	50	-2.992	-22.477	5.502	1.00	0.00
ATOM	432	CG	ASP	50	-4.198	-23.091	6.207	1.00	0.00
ATOM	433	OD1	ASP	50	-4.036	-23.447	7.394	1.00	0.00
ATOM	434	OD2	ASP	50	-5.264	-23.201	5.559	1.00	0.00
ATOM	435	C	ASP	50	-1.886	-21.921	3.301	1.00	0.00
ATOM	436	O	ASP	50	-2.097	-20.910	2.633	1.00	0.00

449

450

ATOM	437	N	ARG	51	-0.665	-22.440	3.458	1.00	0.00
ATOM	438	CA	ARG	51	0.513	-21.843	2.843	1.00	0.00
ATOM	439	CB	ARG	51	1.758	-22.674	3.184	1.00	0.00
ATOM	440	CG	ARG	51	3.021	-22.219	2.432	1.00	0.00
ATOM	441	CD	ARG	51	3.462	-20.806	2.827	1.00	0.00
ATOM	442	NE	ARG	51	4.676	-20.410	2.099	1.00	0.00
ATOM	443	CZ	ARG	51	5.044	-19.145	1.838	1.00	0.00
ATOM	444	NH1	ARG	51	4.449	-18.117	2.451	1.00	0.00
ATOM	445	NH2	ARG	51	6.014	-18.904	0.950	1.00	0.00
ATOM	446	C	ARG	51	0.336	-21.732	1.330	1.00	0.00
ATOM	447	O	ARG	51	0.484	-20.651	0.758	1.00	0.00
ATOM	448	N	TRP	52	0.030	-22.859	0.682	1.00	0.00
ATOM	449	CA	TRP	52	-0.136	-22.917	-0.758	1.00	0.00
ATOM	450	CB	TRP	52	-0.330	-24.375	-1.159	1.00	0.00
ATOM	451	CG	TRP	52	-0.164	-24.630	-2.616	1.00	0.00
ATOM	452	CD1	TRP	52	-1.167	-24.899	-3.473	1.00	0.00
ATOM	453	NE1	TRP	52	-0.666	-25.091	-4.741	1.00	0.00
ATOM	454	CE2	TRP	52	0.706	-24.939	-4.760	1.00	0.00
ATOM	455	CZ2	TRP	52	1.667	-25.024	-5.776	1.00	0.00
ATOM	456	CH2	TRP	52	3.019	-24.813	-5.467	1.00	0.00
ATOM	457	CZ3	TRP	52	3.396	-24.516	-4.146	1.00	0.00
ATOM	458	CE3	TRP	52	2.425	-24.432	-3.131	1.00	0.00
ATOM	459	CD2	TRP	52	1.057	-24.642	-3.411	1.00	0.00
ATOM	460	C	TRP	52	-1.286	-22.033	-1.248	1.00	0.00
ATOM	461	O	TRP	52	-1.217	-21.467	-2.334	1.00	0.00
ATOM	462	N	ARG	53	-2.341	-21.907	-0.443	1.00	0.00
ATOM	463	CA	ARG	53	-3.521	-21.107	-0.718	1.00	0.00
ATOM	464	CB	ARG	53	-4.603	-21.477	0.302	1.00	0.00
ATOM	465	CG	ARG	53	-5.942	-20.771	0.097	1.00	0.00
ATOM	466	CD	ARG	53	-7.046	-21.559	0.816	1.00	0.00
ATOM	467	NE	ARG	53	-6.765	-21.752	2.255	1.00	0.00
ATOM	468	CZ	ARG	53	-7.451	-21.215	3.279	1.00	0.00
ATOM	469	NH1	ARG	53	-8.398	-20.299	3.060	1.00	0.00
ATOM	470	NH2	ARG	53	-7.202	-21.601	4.538	1.00	0.00
ATOM	471	C	ARG	53	-3.116	-19.635	-0.714	1.00	0.00
ATOM	472	O	ARG	53	-3.484	-18.896	-1.628	1.00	0.00
ATOM	473	N	THR	54	-2.329	-19.213	0.286	1.00	0.00
ATOM	474	CA	THR	54	-1.823	-17.849	0.348	1.00	0.00
ATOM	475	CB	THR	54	-0.989	-17.619	1.619	1.00	0.00
ATOM	476	CG2	THR	54	-0.503	-16.167	1.703	1.00	0.00
ATOM	477	OG1	THR	54	-1.775	-17.895	2.760	1.00	0.00
ATOM	478	C	THR	54	-1.002	-17.597	-0.918	1.00	0.00
ATOM	479	O	THR	54	-1.219	-16.595	-1.589	1.00	0.00
ATOM	480	N	MET	55	-0.082	-18.512	-1.257	1.00	0.00
ATOM	481	CA	MET	55	0.744	-18.397	-2.454	1.00	0.00
ATOM	482	CB	MET	55	1.693	-19.598	-2.569	1.00	0.00
ATOM	483	CG	MET	55	2.880	-19.508	-1.599	1.00	0.00
ATOM	484	SD	MET	55	3.890	-18.001	-1.697	1.00	0.00
ATOM	485	CE	MET	55	4.165	-17.925	-3.486	1.00	0.00
ATOM	486	C	MET	55	-0.110	-18.237	-3.716	1.00	0.00

451					452				
ATOM	487	O	MET	55	0.144	-17.342	-4.522	1.00	0.00
ATOM	488	N	LYS	56	-1.126	-19.090	-3.885	1.00	0.00
ATOM	489	CA	LYS	56	-2.035	-19.037	-5.020	1.00	0.00
ATOM	490	CB	LYS	56	-3.066	-20.172	-4.947	1.00	0.00
ATOM	491	CG	LYS	56	-2.409	-21.486	-5.381	1.00	0.00
ATOM	492	CD	LYS	56	-3.303	-22.704	-5.143	1.00	0.00
ATOM	493	CE	LYS	56	-4.559	-22.736	-6.023	1.00	0.00
ATOM	494	NZ	LYS	56	-5.119	-24.099	-6.074	1.00	0.00
ATOM	495	C	LYS	56	-2.712	-17.666	-5.122	1.00	0.00
ATOM	496	O	LYS	56	-2.776	-17.090	-6.203	1.00	0.00
ATOM	497	N	LYS	57	-3.214	-17.126	-4.008	1.00	0.00
ATOM	498	CA	LYS	57	-3.857	-15.817	-4.023	1.00	0.00
ATOM	499	CB	LYS	57	-4.662	-15.605	-2.734	1.00	0.00
ATOM	500	CG	LYS	57	-5.860	-16.565	-2.672	1.00	0.00
ATOM	501	CD	LYS	57	-6.859	-16.200	-1.565	1.00	0.00
ATOM	502	CE	LYS	57	-6.256	-16.323	-0.161	1.00	0.00
ATOM	503	NZ	LYS	57	-7.276	-16.104	0.884	1.00	0.00
ATOM	504	C	LYS	57	-2.839	-14.687	-4.235	1.00	0.00
ATOM	505	O	LYS	57	-3.169	-13.674	-4.847	1.00	0.00
ATOM	506	N	LEU	58	-1.617	-14.851	-3.720	1.00	0.00
ATOM	507	CA	LEU	58	-0.544	-13.870	-3.789	1.00	0.00
ATOM	508	CB	LEU	58	0.479	-14.194	-2.685	1.00	0.00
ATOM	509	CG	LEU	58	1.690	-13.249	-2.625	1.00	0.00
ATOM	510	CD1	LEU	58	1.294	-11.869	-2.086	1.00	0.00
ATOM	511	CD2	LEU	58	2.756	-13.879	-1.725	1.00	0.00
ATOM	512	C	LEU	58	0.118	-13.800	-5.168	1.00	0.00
ATOM	513	O	LEU	58	-0.048	-12.814	-5.883	1.00	0.00
ATOM	514	N	LYS	59	0.899	-14.827	-5.522	1.00	0.00
ATOM	515	CA	LYS	59	1.653	-14.899	-6.767	1.00	0.00
ATOM	516	CB	LYS	59	3.032	-15.507	-6.470	1.00	0.00
ATOM	517	CG	LYS	59	3.962	-15.433	-7.688	1.00	0.00
ATOM	518	CD	LYS	59	5.378	-15.883	-7.317	1.00	0.00
ATOM	519	CE	LYS	59	6.290	-15.796	-8.548	1.00	0.00
ATOM	520	NZ	LYS	59	7.671	-16.209	-8.236	1.00	0.00
ATOM	521	C	LYS	59	0.921	-15.685	-7.852	1.00	0.00
ATOM	522	O	LYS	59	1.096	-15.394	-9.033	1.00	0.00
ATOM	523	N	LEU	60	0.123	-16.682	-7.459	1.00	0.00
ATOM	524	CA	LEU	60	-0.629	-17.533	-8.371	1.00	0.00
ATOM	525	CB	LEU	60	-1.559	-16.711	-9.286	1.00	0.00
ATOM	526	CG	LEU	60	-2.817	-17.479	-9.733	1.00	0.00
ATOM	527	CD1	LEU	60	-3.733	-16.525	-10.507	1.00	0.00
ATOM	528	CD2	LEU	60	-2.499	-18.689	-10.618	1.00	0.00
ATOM	529	C	LEU	60	0.299	-18.504	-9.101	1.00	0.00
ATOM	530	O	LEU	60	0.666	-18.305	-10.256	1.00	0.00
ATOM	531	N	ILE	61	0.664	-19.577	-8.395	1.00	0.00
ATOM	532	CA	ILE	61	1.521	-20.638	-8.893	1.00	0.00
ATOM	533	CB	ILE	61	2.389	-21.169	-7.738	1.00	0.00
ATOM	534	CG2	ILE	61	3.254	-22.351	-8.188	1.00	0.00
ATOM	535	CG1	ILE	61	3.268	-20.000	-7.248	1.00	0.00
ATOM	536	CD1	ILE	61	4.391	-20.427	-6.306	1.00	0.00

453					454				
ATOM	537	C	ILE	61	0.619	-21.678	-9.561	1.00	0.00
ATOM	538	O	ILE	61	0.173	-22.636	-8.932	1.00	0.00
ATOM	539	N	SER	62	0.354	-21.447	-10.851	1.00	0.00
ATOM	540	CA	SER	62	-0.495	-22.247	-11.725	1.00	0.00
ATOM	541	CB	SER	62	-0.467	-21.630	-13.130	1.00	0.00
ATOM	542	OG	SER	62	-0.791	-20.256	-13.065	1.00	0.00
ATOM	543	C	SER	62	-0.080	-23.721	-11.776	1.00	0.00
ATOM	544	O	SER	62	0.699	-24.122	-12.638	1.00	0.00
ATOM	545	N	SER	63	-0.614	-24.524	-10.852	1.00	0.00
ATOM	546	CA	SER	63	-0.351	-25.950	-10.738	1.00	0.00
ATOM	547	CB	SER	63	1.111	-26.194	-10.330	1.00	0.00
ATOM	548	OG	SER	63	1.489	-25.382	-9.239	1.00	0.00
ATOM	549	C	SER	63	-1.363	-26.540	-9.753	1.00	0.00
ATOM	550	O	SER	63	-1.000	-26.992	-8.669	1.00	0.00
ATOM	551	N	ASP	64	-2.640	-26.513	-10.150	1.00	0.00
ATOM	552	CA	ASP	64	-3.753	-27.007	-9.355	1.00	0.00
ATOM	553	CB	ASP	64	-5.019	-26.209	-9.724	1.00	0.00
ATOM	554	CG	ASP	64	-6.093	-26.257	-8.636	1.00	0.00
ATOM	555	OD1	ASP	64	-6.567	-27.373	-8.335	1.00	0.00
ATOM	556	OD2	ASP	64	-6.417	-25.163	-8.120	1.00	0.00
ATOM	557	C	ASP	64	-3.874	-28.531	-9.514	1.00	0.00
ATOM	558	O	ASP	64	-2.883	-29.248	-9.375	1.00	0.00
ATOM	559	N	SER	65	-5.076	-29.037	-9.792	1.00	0.00
ATOM	560	CA	SER	65	-5.383	-30.448	-9.935	1.00	0.00
ATOM	561	CB	SER	65	-5.711	-30.984	-8.536	1.00	0.00
ATOM	562	OG	SER	65	-6.759	-30.232	-7.949	1.00	0.00
ATOM	563	C	SER	65	-6.567	-30.636	-10.887	1.00	0.00
ATOM	564	O	SER	65	-7.213	-29.664	-11.280	1.00	0.00
ATOM	565	N	GLU	66	-6.848	-31.894	-11.242	1.00	0.00
ATOM	566	CA	GLU	66	-7.944	-32.288	-12.115	1.00	0.00
ATOM	567	CB	GLU	66	-7.587	-32.055	-13.594	1.00	0.00
ATOM	568	CG	GLU	66	-6.302	-32.764	-14.049	1.00	0.00
ATOM	569	CD	GLU	66	-5.994	-32.476	-15.517	1.00	0.00
ATOM	570	OE1	GLU	66	-5.872	-33.458	-16.283	1.00	0.00
ATOM	571	OE2	GLU	66	-5.881	-31.275	-15.848	1.00	0.00
ATOM	572	C	GLU	66	-8.299	-33.745	-11.814	1.00	0.00
ATOM	573	O	GLU	66	-7.452	-34.497	-11.329	1.00	0.00
ATOM	574	N	ASP	67	-9.549	-34.128	-12.090	1.00	0.00
ATOM	575	CA	ASP	67	-10.093	-35.460	-11.870	1.00	0.00
ATOM	576	CB	ASP	67	-10.441	-35.638	-10.383	1.00	0.00
ATOM	577	CG	ASP	67	-10.972	-37.036	-10.075	1.00	0.00
ATOM	578	OD1	ASP	67	-10.158	-37.984	-10.140	1.00	0.00
ATOM	579	OD2	ASP	67	-12.174	-37.131	-9.739	1.00	0.00
ATOM	580	C	ASP	67	-11.336	-35.605	-12.753	1.00	0.00
ATOM	581	OT1	ASP	67	-11.367	-36.600	-13.511	1.00	0.00
ATOM	582	OT2	ASP	67	-11.990	-34.553	-12.946	1.00	0.00
ATOM	583	O5'	GUA	68	-7.846	-40.119	12.226	1.00	0.00
ATOM	584	C5'	GUA	68	-7.501	-40.811	11.043	1.00	0.00
ATOM	585	C4'	GUA	68	-7.744	-39.955	9.796	1.00	0.00
ATOM	586	O4'	GUA	68	-9.080	-39.496	9.729	1.00	0.00

455

456

ATOM	587	C1'	GUA	68	-9.124	-38.512	8.718	1.00	0.00
ATOM	588	N9	GUA	68	-10.299	-37.627	8.848	1.00	0.00
ATOM	589	C8	GUA	68	-10.707	-36.920	9.945	1.00	0.00
ATOM	590	N7	GUA	68	-11.811	-36.248	9.767	1.00	0.00
ATOM	591	C5	GUA	68	-12.147	-36.508	8.442	1.00	0.00
ATOM	592	C6	GUA	68	-13.253	-36.055	7.660	1.00	0.00
ATOM	593	O6	GUA	68	-14.222	-35.395	8.028	1.00	0.00
ATOM	594	N1	GUA	68	-13.159	-36.448	6.330	1.00	0.00
ATOM	595	C2	GUA	68	-12.148	-37.235	5.816	1.00	0.00
ATOM	596	N2	GUA	68	-12.179	-37.524	4.515	1.00	0.00
ATOM	597	N3	GUA	68	-11.138	-37.706	6.558	1.00	0.00
ATOM	598	C4	GUA	68	-11.193	-37.306	7.856	1.00	0.00
ATOM	599	C3'	GUA	68	-6.908	-38.671	9.732	1.00	0.00
ATOM	600	C2'	GUA	68	-7.838	-37.743	8.951	1.00	0.00
ATOM	601	O3'	GUA	68	-5.675	-38.920	9.077	1.00	0.00
ATOM	602	P	THY	69	-4.616	-37.744	8.719	1.00	0.00
ATOM	603	OP1	THY	69	-3.342	-38.383	8.326	1.00	0.00
ATOM	604	OP2	THY	69	-4.637	-36.756	9.821	1.00	0.00
ATOM	605	O5'	THY	69	-5.257	-37.054	7.405	1.00	0.00
ATOM	606	C5'	THY	69	-5.615	-37.831	6.276	1.00	0.00
ATOM	607	C4'	THY	69	-6.587	-37.088	5.348	1.00	0.00
ATOM	608	O4'	THY	69	-7.788	-36.632	5.930	1.00	0.00
ATOM	609	C1'	THY	69	-8.268	-35.526	5.203	1.00	0.00
ATOM	610	N1	THY	69	-9.262	-34.791	6.033	1.00	0.00
ATOM	611	C6	THY	69	-9.007	-34.592	7.367	1.00	0.00
ATOM	612	C5	THY	69	-9.867	-33.900	8.153	1.00	0.00
ATOM	613	C7	THY	69	-9.452	-33.703	9.600	1.00	0.00
ATOM	614	C4	THY	69	-11.108	-33.368	7.630	1.00	0.00
ATOM	615	O4	THY	69	-11.928	-32.711	8.263	1.00	0.00
ATOM	616	N3	THY	69	-11.326	-33.657	6.293	1.00	0.00
ATOM	617	C2	THY	69	-10.458	-34.350	5.459	1.00	0.00
ATOM	618	O2	THY	69	-10.756	-34.545	4.285	1.00	0.00
ATOM	619	C3'	THY	69	-5.964	-35.862	4.669	1.00	0.00
ATOM	620	C2'	THY	69	-6.964	-34.752	5.019	1.00	0.00
ATOM	621	O3'	THY	69	-5.819	-36.075	3.271	1.00	0.00
ATOM	622	P	THY	70	-5.072	-34.992	2.332	1.00	0.00
ATOM	623	OP1	THY	70	-4.196	-34.191	3.206	1.00	0.00
ATOM	624	OP2	THY	70	-4.474	-35.677	1.164	1.00	0.00
ATOM	625	O5'	THY	70	-6.269	-34.033	1.839	1.00	0.00
ATOM	626	C5'	THY	70	-7.313	-34.503	1.007	1.00	0.00
ATOM	627	C4'	THY	70	-8.474	-33.501	1.018	1.00	0.00
ATOM	628	O4'	THY	70	-8.913	-33.270	2.342	1.00	0.00
ATOM	629	C1'	THY	70	-9.665	-32.078	2.332	1.00	0.00
ATOM	630	N1	THY	70	-9.855	-31.530	3.698	1.00	0.00
ATOM	631	C6	THY	70	-8.818	-31.536	4.598	1.00	0.00
ATOM	632	C5	THY	70	-8.982	-31.050	5.854	1.00	0.00
ATOM	633	C7	THY	70	-7.757	-31.104	6.747	1.00	0.00
ATOM	634	C4	THY	70	-10.251	-30.509	6.299	1.00	0.00
ATOM	635	O4	THY	70	-10.488	-30.040	7.409	1.00	0.00
ATOM	636	N3	THY	70	-11.240	-30.539	5.332	1.00	0.00

457					458				
ATOM	637	C2	THY	70	-11.083	-30.957	4.022	1.00	0.00
ATOM	638	O2	THY	70	-11.979	-30.779	3.201	1.00	0.00
ATOM	639	C3'	THY	70	-8.098	-32.105	0.506	1.00	0.00
ATOM	640	C2'	THY	70	-8.798	-31.157	1.488	1.00	0.00
ATOM	641	O3'	THY	70	-8.532	-31.915	-0.827	1.00	0.00
ATOM	642	P	ADE	71	-8.133	-30.589	-1.654	1.00	0.00
ATOM	643	OP1	ADE	71	-6.836	-30.096	-1.135	1.00	0.00
ATOM	644	OP2	ADE	71	-8.298	-30.864	-3.095	1.00	0.00
ATOM	645	O5'	ADE	71	-9.227	-29.510	-1.202	1.00	0.00
ATOM	646	C5'	ADE	71	-10.478	-29.344	-1.832	1.00	0.00
ATOM	647	C4'	ADE	71	-11.102	-28.054	-1.280	1.00	0.00
ATOM	648	O4'	ADE	71	-11.521	-28.228	0.073	1.00	0.00
ATOM	649	C1'	ADE	71	-11.118	-27.101	0.828	1.00	0.00
ATOM	650	N9	ADE	71	-11.012	-27.369	2.281	1.00	0.00
ATOM	651	C8	ADE	71	-10.001	-28.035	2.917	1.00	0.00
ATOM	652	N7	ADE	71	-10.025	-27.979	4.213	1.00	0.00
ATOM	653	C5	ADE	71	-11.187	-27.275	4.466	1.00	0.00
ATOM	654	C6	ADE	71	-11.804	-26.900	5.668	1.00	0.00
ATOM	655	N6	ADE	71	-11.258	-27.205	6.845	1.00	0.00
ATOM	656	N1	ADE	71	-12.948	-26.198	5.621	1.00	0.00
ATOM	657	C2	ADE	71	-13.449	-25.887	4.424	1.00	0.00
ATOM	658	N3	ADE	71	-12.957	-26.171	3.218	1.00	0.00
ATOM	659	C4	ADE	71	-11.806	-26.889	3.304	1.00	0.00
ATOM	660	C3'	ADE	71	-10.070	-26.905	-1.261	1.00	0.00
ATOM	661	C2'	ADE	71	-9.728	-26.893	0.228	1.00	0.00
ATOM	662	O3'	ADE	71	-10.680	-25.714	-1.712	1.00	0.00
ATOM	663	P	GUA	72	-9.885	-24.317	-1.847	1.00	0.00
ATOM	664	OP1	GUA	72	-10.025	-23.810	-3.229	1.00	0.00
ATOM	665	OP2	GUA	72	-8.546	-24.429	-1.224	1.00	0.00
ATOM	666	O5'	GUA	72	-10.787	-23.413	-0.887	1.00	0.00
ATOM	667	C5'	GUA	72	-12.154	-23.182	-1.162	1.00	0.00
ATOM	668	C4'	GUA	72	-12.768	-22.389	-0.009	1.00	0.00
ATOM	669	O4'	GUA	72	-12.519	-23.085	1.206	1.00	0.00
ATOM	670	C1'	GUA	72	-11.830	-22.250	2.114	1.00	0.00
ATOM	671	N9	GUA	72	-10.917	-23.043	2.972	1.00	0.00
ATOM	672	C8	GUA	72	-9.732	-23.640	2.631	1.00	0.00
ATOM	673	N7	GUA	72	-9.115	-24.241	3.612	1.00	0.00
ATOM	674	C5	GUA	72	-9.957	-24.019	4.696	1.00	0.00
ATOM	675	C6	GUA	72	-9.807	-24.399	6.063	1.00	0.00
ATOM	676	O6	GUA	72	-8.880	-25.032	6.565	1.00	0.00
ATOM	677	N1	GUA	72	-10.884	-23.999	6.848	1.00	0.00
ATOM	678	C2	GUA	72	-12.003	-23.350	6.360	1.00	0.00
ATOM	679	N2	GUA	72	-12.993	-23.089	7.211	1.00	0.00
ATOM	680	N3	GUA	72	-12.137	-22.974	5.083	1.00	0.00
ATOM	681	C4	GUA	72	-11.081	-23.328	4.306	1.00	0.00
ATOM	682	C3'	GUA	72	-12.139	-20.999	0.146	1.00	0.00
ATOM	683	C2'	GUA	72	-11.075	-21.278	1.204	1.00	0.00
ATOM	684	O3'	GUA	72	-13.141	-20.122	0.614	1.00	0.00
ATOM	685	P	GUA	73	-12.928	-18.531	0.760	1.00	0.00
ATOM	686	OP1	GUA	73	-13.769	-17.844	-0.245	1.00	0.00

459

460

ATOM	687	OP2	GUA	73	-11.479	-18.226	0.853	1.00	0.00
ATOM	688	O5'	GUA	73	-13.578	-18.323	2.215	1.00	0.00
ATOM	689	C5'	GUA	73	-14.944	-18.609	2.458	1.00	0.00
ATOM	690	C4'	GUA	73	-15.222	-18.643	3.964	1.00	0.00
ATOM	691	O4'	GUA	73	-14.381	-19.609	4.582	1.00	0.00
ATOM	692	C1'	GUA	73	-13.639	-19.015	5.631	1.00	0.00
ATOM	693	N9	GUA	73	-12.293	-19.622	5.716	1.00	0.00
ATOM	694	C8	GUA	73	-11.395	-19.822	4.701	1.00	0.00
ATOM	695	N7	GUA	73	-10.249	-20.312	5.081	1.00	0.00
ATOM	696	C5	GUA	73	-10.409	-20.481	6.447	1.00	0.00
ATOM	697	C6	GUA	73	-9.510	-21.041	7.395	1.00	0.00
ATOM	698	O6	GUA	73	-8.378	-21.466	7.174	1.00	0.00
ATOM	699	N1	GUA	73	-10.048	-21.088	8.676	1.00	0.00
ATOM	700	C2	GUA	73	-11.314	-20.640	9.006	1.00	0.00
ATOM	701	N2	GUA	73	-11.681	-20.686	10.288	1.00	0.00
ATOM	702	N3	GUA	73	-12.163	-20.113	8.110	1.00	0.00
ATOM	703	C4	GUA	73	-11.657	-20.070	6.850	1.00	0.00
ATOM	704	C3'	GUA	73	-14.918	-17.303	4.644	1.00	0.00
ATOM	705	C2'	GUA	73	-13.518	-17.560	5.193	1.00	0.00
ATOM	706	O3'	GUA	73	-15.873	-17.071	5.664	1.00	0.00
ATOM	707	P	GUA	74	-15.901	-15.702	6.523	1.00	0.00
ATOM	708	OP1	GUA	74	-17.311	-15.390	6.844	1.00	0.00
ATOM	709	OP2	GUA	74	-15.064	-14.693	5.837	1.00	0.00
ATOM	710	O5'	GUA	74	-15.157	-16.125	7.886	1.00	0.00
ATOM	711	C5'	GUA	74	-15.754	-17.029	8.796	1.00	0.00
ATOM	712	C4'	GUA	74	-14.865	-17.213	10.028	1.00	0.00
ATOM	713	O4'	GUA	74	-13.617	-17.761	9.639	1.00	0.00
ATOM	714	C1'	GUA	74	-12.565	-17.070	10.279	1.00	0.00
ATOM	715	N9	GUA	74	-11.336	-17.173	9.462	1.00	0.00
ATOM	716	C8	GUA	74	-11.161	-16.806	8.152	1.00	0.00
ATOM	717	N7	GUA	74	-10.007	-17.137	7.647	1.00	0.00
ATOM	718	C5	GUA	74	-9.355	-17.756	8.706	1.00	0.00
ATOM	719	C6	GUA	74	-8.059	-18.344	8.759	1.00	0.00
ATOM	720	O6	GUA	74	-7.258	-18.467	7.837	1.00	0.00
ATOM	721	N1	GUA	74	-7.740	-18.821	10.025	1.00	0.00
ATOM	722	C2	GUA	74	-8.589	-18.770	11.113	1.00	0.00
ATOM	723	N2	GUA	74	-8.126	-19.195	12.290	1.00	0.00
ATOM	724	N3	GUA	74	-9.823	-18.250	11.054	1.00	0.00
ATOM	725	C4	GUA	74	-10.146	-17.757	9.829	1.00	0.00
ATOM	726	C3'	GUA	74	-14.552	-15.890	10.746	1.00	0.00
ATOM	727	C2'	GUA	74	-13.104	-15.643	10.325	1.00	0.00
ATOM	728	O3'	GUA	74	-14.709	-16.081	12.141	1.00	0.00
ATOM	729	P	THY	75	-14.458	-14.905	13.219	1.00	0.00
ATOM	730	OP1	THY	75	-14.447	-13.604	12.513	1.00	0.00
ATOM	731	OP2	THY	75	-15.377	-15.117	14.359	1.00	0.00
ATOM	732	O5'	THY	75	-12.959	-15.225	13.707	1.00	0.00
ATOM	733	C5'	THY	75	-12.671	-16.401	14.442	1.00	0.00
ATOM	734	C4'	THY	75	-11.171	-16.503	14.715	1.00	0.00
ATOM	735	O4'	THY	75	-10.459	-16.530	13.492	1.00	0.00
ATOM	736	C1'	THY	75	-9.222	-15.882	13.674	1.00	0.00

461				462				
ATOM	737	N1	THY	75	-8.635	-15.505	12.359	1.00 0.00
ATOM	738	C6	THY	75	-9.386	-14.824	11.426	1.00 0.00
ATOM	739	C5	THY	75	-8.902	-14.565	10.184	1.00 0.00
ATOM	740	C7	THY	75	-9.813	-13.781	9.258	1.00 0.00
ATOM	741	C4	THY	75	-7.587	-15.013	9.774	1.00 0.00
ATOM	742	O4	THY	75	-7.085	-14.885	8.660	1.00 0.00
ATOM	743	N3	THY	75	-6.885	-15.655	10.776	1.00 0.00
ATOM	744	C2	THY	75	-7.337	-15.919	12.059	1.00 0.00
ATOM	745	O2	THY	75	-6.600	-16.489	12.860	1.00 0.00
ATOM	746	C3'	THY	75	-10.612	-15.308	15.508	1.00 0.00
ATOM	747	C2'	THY	75	-9.651	-14.673	14.500	1.00 0.00
ATOM	748	O3'	THY	75	-9.967	-15.800	16.670	1.00 0.00
ATOM	749	P	THY	76	-9.245	-14.834	17.745	1.00 0.00
ATOM	750	OP1	THY	76	-9.581	-13.425	17.438	1.00 0.00
ATOM	751	OP2	THY	76	-9.489	-15.375	19.100	1.00 0.00
ATOM	752	O5'	THY	76	-7.697	-15.068	17.380	1.00 0.00
ATOM	753	C5'	THY	76	-7.088	-16.330	17.576	1.00 0.00
ATOM	754	C4'	THY	76	-5.627	-16.284	17.124	1.00 0.00
ATOM	755	O4'	THY	76	-5.574	-15.934	15.752	1.00 0.00
ATOM	756	C1'	THY	76	-4.588	-14.946	15.561	1.00 0.00
ATOM	757	N1	THY	76	-4.841	-14.219	14.283	1.00 0.00
ATOM	758	C6	THY	76	-5.953	-13.424	14.121	1.00 0.00
ATOM	759	C5	THY	76	-6.233	-12.836	12.928	1.00 0.00
ATOM	760	C7	THY	76	-7.481	-11.975	12.889	1.00 0.00
ATOM	761	C4	THY	76	-5.387	-13.028	11.767	1.00 0.00
ATOM	762	O4	THY	76	-5.581	-12.572	10.642	1.00 0.00
ATOM	763	N3	THY	76	-4.291	-13.832	12.013	1.00 0.00
ATOM	764	C2	THY	76	-3.989	-14.466	13.205	1.00 0.00
ATOM	765	O2	THY	76	-3.015	-15.216	13.264	1.00 0.00
ATOM	766	C3'	THY	76	-4.812	-15.218	17.877	1.00 0.00
ATOM	767	C2'	THY	76	-4.724	-14.105	16.833	1.00 0.00
ATOM	768	O3'	THY	76	-3.532	-15.745	18.185	1.00 0.00
ATOM	769	P	ADE	77	-2.614	-15.133	19.365	1.00 0.00
ATOM	770	OP1	ADE	77	-2.695	-16.029	20.541	1.00 0.00
ATOM	771	OP2	ADE	77	-2.912	-13.692	19.507	1.00 0.00
ATOM	772	O5'	ADE	77	-1.142	-15.266	18.732	1.00 0.00
ATOM	773	C5'	ADE	77	-0.509	-16.520	18.607	1.00 0.00
ATOM	774	C4'	ADE	77	0.667	-16.416	17.633	1.00 0.00
ATOM	775	O4'	ADE	77	0.205	-15.859	16.418	1.00 0.00
ATOM	776	C1'	ADE	77	0.918	-14.684	16.078	1.00 0.00
ATOM	777	N9	ADE	77	-0.027	-13.747	15.431	1.00 0.00
ATOM	778	C8	ADE	77	-1.174	-13.210	15.963	1.00 0.00
ATOM	779	N7	ADE	77	-1.893	-12.525	15.120	1.00 0.00
ATOM	780	C5	ADE	77	-1.159	-12.599	13.944	1.00 0.00
ATOM	781	C6	ADE	77	-1.373	-12.058	12.664	1.00 0.00
ATOM	782	N6	ADE	77	-2.437	-11.297	12.411	1.00 0.00
ATOM	783	N1	ADE	77	-0.459	-12.279	11.699	1.00 0.00
ATOM	784	C2	ADE	77	0.604	-13.027	11.999	1.00 0.00
ATOM	785	N3	ADE	77	0.905	-13.620	13.154	1.00 0.00
ATOM	786	C4	ADE	77	-0.022	-13.344	14.113	1.00 0.00

463				464			
ATOM	787	C3' ADE	77	1.814	-15.509	18.091	1.00 0.00
ATOM	788	C2' ADE	77	1.470	-14.184	17.411	1.00 0.00
ATOM	789	O3' ADE	77	3.003	-16.092	17.588	1.00 0.00
ATOM	790	P GUA	78	4.468	-15.686	18.112	1.00 0.00
ATOM	791	OP1 GUA	78	5.378	-16.785	17.702	1.00 0.00
ATOM	792	OP2 GUA	78	4.369	-15.308	19.539	1.00 0.00
ATOM	793	O5' GUA	78	4.836	-14.382	17.246	1.00 0.00
ATOM	794	C5' GUA	78	5.538	-14.526	16.030	1.00 0.00
ATOM	795	C4' GUA	78	5.363	-13.334	15.092	1.00 0.00
ATOM	796	O4' GUA	78	4.022	-12.916	14.961	1.00 0.00
ATOM	797	C1' GUA	78	4.072	-11.630	14.383	1.00 0.00
ATOM	798	N9 GUA	78	2.754	-10.957	14.477	1.00 0.00
ATOM	799	C8 GUA	78	1.956	-10.809	15.581	1.00 0.00
ATOM	800	N7 GUA	78	0.825	-10.201	15.348	1.00 0.00
ATOM	801	C5 GUA	78	0.878	-9.906	13.989	1.00 0.00
ATOM	802	C6 GUA	78	-0.067	-9.232	13.152	1.00 0.00
ATOM	803	O6 GUA	78	-1.159	-8.756	13.457	1.00 0.00
ATOM	804	N1 GUA	78	0.364	-9.144	11.834	1.00 0.00
ATOM	805	C2 GUA	78	1.556	-9.653	11.364	1.00 0.00
ATOM	806	N2 GUA	78	1.823	-9.492	10.066	1.00 0.00
ATOM	807	N3 GUA	78	2.445	-10.283	12.145	1.00 0.00
ATOM	808	C4 GUA	78	2.052	-10.373	13.445	1.00 0.00
ATOM	809	C3' GUA	78	6.149	-12.091	15.524	1.00 0.00
ATOM	810	C2' GUA	78	5.136	-10.965	15.255	1.00 0.00
ATOM	811	O3' GUA	78	7.335	-12.073	14.739	1.00 0.00
ATOM	812	P GUA	79	8.454	-10.911	14.826	1.00 0.00
ATOM	813	OP1 GUA	79	9.722	-11.439	14.264	1.00 0.00
ATOM	814	OP2 GUA	79	8.433	-10.322	16.181	1.00 0.00
ATOM	815	O5' GUA	79	7.859	-9.839	13.785	1.00 0.00
ATOM	816	C5' GUA	79	7.720	-10.164	12.415	1.00 0.00
ATOM	817	C4' GUA	79	6.868	-9.118	11.697	1.00 0.00
ATOM	818	O4' GUA	79	5.578	-9.027	12.279	1.00 0.00
ATOM	819	C1' GUA	79	5.118	-7.707	12.103	1.00 0.00
ATOM	820	N9 GUA	79	3.986	-7.405	13.007	1.00 0.00
ATOM	821	C8 GUA	79	3.894	-7.604	14.361	1.00 0.00
ATOM	822	N7 GUA	79	2.754	-7.242	14.879	1.00 0.00
ATOM	823	C5 GUA	79	2.038	-6.746	13.795	1.00 0.00
ATOM	824	C6 GUA	79	0.723	-6.191	13.729	1.00 0.00
ATOM	825	O6 GUA	79	-0.095	-6.048	14.636	1.00 0.00
ATOM	826	N1 GUA	79	0.383	-5.786	12.444	1.00 0.00
ATOM	827	C2 GUA	79	1.202	-5.910	11.343	1.00 0.00
ATOM	828	N2 GUA	79	0.768	-5.397	10.191	1.00 0.00
ATOM	829	N3 GUA	79	2.427	-6.445	11.397	1.00 0.00
ATOM	830	C4 GUA	79	2.787	-6.838	12.647	1.00 0.00
ATOM	831	C3' GUA	79	7.457	-7.698	11.752	1.00 0.00
ATOM	832	C2' GUA	79	6.364	-6.921	12.489	1.00 0.00
ATOM	833	O3' GUA	79	7.672	-7.264	10.420	1.00 0.00
ATOM	834	P GUA	80	8.298	-5.821	10.059	1.00 0.00
ATOM	835	OP1 GUA	80	8.979	-5.283	11.257	1.00 0.00
ATOM	836	OP2 GUA	80	9.040	-5.948	8.785	1.00 0.00

465				466					
ATOM	837	05' GUA	80	6.974	-4.942	9.789	1.00	0.00	
ATOM	838	C5' GUA	80	6.142	-5.203	8.673	1.00	0.00	
ATOM	839	C4' GUA	80	4.946	-4.246	8.655	1.00	0.00	
ATOM	840	04' GUA	80	4.157	-4.432	9.818	1.00	0.00	
ATOM	841	C1' GUA	80	3.699	-3.174	10.260	1.00	0.00	
ATOM	842	N9 GUA	80	3.263	-3.228	11.674	1.00	0.00	
ATOM	843	C8 GUA	80	3.964	-3.673	12.766	1.00	0.00	
ATOM	844	N7 GUA	80	3.284	-3.656	13.879	1.00	0.00	
ATOM	845	C5 GUA	80	2.039	-3.166	13.503	1.00	0.00	
ATOM	846	C6 GUA	80	0.850	-2.980	14.274	1.00	0.00	
ATOM	847	06 GUA	80	0.674	-3.212	15.467	1.00	0.00	
ATOM	848	N1 GUA	80	-0.209	-2.505	13.511	1.00	0.00	
ATOM	849	C2 GUA	80	-0.146	-2.239	12.160	1.00	0.00	
ATOM	850	N2 GUA	80	-1.252	-1.779	11.572	1.00	0.00	
ATOM	851	N3 GUA	80	0.964	-2.423	11.429	1.00	0.00	
ATOM	852	C4 GUA	80	2.017	-2.893	12.155	1.00	0.00	
ATOM	853	C3' GUA	80	5.356	-2.763	8.667	1.00	0.00	
ATOM	854	C2' GUA	80	4.950	-2.321	10.069	1.00	0.00	
ATOM	855	03' GUA	80	4.610	-2.036	7.713	1.00	0.00	
ATOM	856	05' CYT	81	-9.323	-1.368	16.752	1.00	0.00	
ATOM	857	C5' CYT	81	-9.139	-0.288	15.860	1.00	0.00	
ATOM	858	C4' CYT	81	-8.055	-0.594	14.819	1.00	0.00	
ATOM	859	04' CYT	81	-6.825	-0.922	15.432	1.00	0.00	
ATOM	860	C1' CYT	81	-6.029	-1.539	14.444	1.00	0.00	
ATOM	861	N1 CYT	81	-4.890	-2.285	15.036	1.00	0.00	
ATOM	862	C6 CYT	81	-5.087	-3.066	16.145	1.00	0.00	
ATOM	863	C5 CYT	81	-4.094	-3.820	16.665	1.00	0.00	
ATOM	864	C4 CYT	81	-2.815	-3.751	16.017	1.00	0.00	
ATOM	865	N4 CYT	81	-1.783	-4.460	16.475	1.00	0.00	
ATOM	866	N3 CYT	81	-2.636	-3.004	14.919	1.00	0.00	
ATOM	867	C2 CYT	81	-3.655	-2.275	14.386	1.00	0.00	
ATOM	868	02 CYT	81	-3.470	-1.639	13.351	1.00	0.00	
ATOM	869	C3' CYT	81	-8.365	-1.795	13.912	1.00	0.00	
ATOM	870	C2' CYT	81	-7.015	-2.505	13.807	1.00	0.00	
ATOM	871	03' CYT	81	-8.861	-1.329	12.668	1.00	0.00	
ATOM	872	P CYT	82	-9.276	-2.327	11.465	1.00	0.00	
ATOM	873	OP1 CYT	82	-10.295	-1.645	10.639	1.00	0.00	
ATOM	874	OP2 CYT	82	-9.568	-3.655	12.049	1.00	0.00	
ATOM	875	05' CYT	82	-7.917	-2.451	10.599	1.00	0.00	
ATOM	876	C5' CYT	82	-7.384	-1.340	9.900	1.00	0.00	
ATOM	877	C4' CYT	82	-6.088	-1.717	9.170	1.00	0.00	
ATOM	878	04' CYT	82	-5.115	-2.155	10.097	1.00	0.00	
ATOM	879	C1' CYT	82	-4.427	-3.284	9.594	1.00	0.00	
ATOM	880	N1 CYT	82	-4.032	-4.118	10.750	1.00	0.00	
ATOM	881	C6 CYT	82	-4.984	-4.453	11.672	1.00	0.00	
ATOM	882	C5 CYT	82	-4.693	-5.159	12.778	1.00	0.00	
ATOM	883	C4 CYT	82	-3.321	-5.545	12.957	1.00	0.00	
ATOM	884	N4 CYT	82	-2.954	-6.265	14.018	1.00	0.00	
ATOM	885	N3 CYT	82	-2.393	-5.238	12.038	1.00	0.00	
ATOM	886	C2 CYT	82	-2.715	-4.542	10.910	1.00	0.00	

(235)

特開2003-135087

467

468

ATOM	887	O2	CYT	82	-1.859	-4.313	10.058	1.00	0.00
ATOM	888	C3'	CYT	82	-6.274	-2.858	8.159	1.00	0.00
ATOM	889	C2'	CYT	82	-5.486	-4.011	8.769	1.00	0.00
ATOM	890	O3'	CYT	82	-5.775	-2.423	6.903	1.00	0.00
ATOM	891	P	CYT	83	-5.903	-3.303	5.557	1.00	0.00
ATOM	892	OP1	CYT	83	-7.045	-4.230	5.712	1.00	0.00
ATOM	893	OP2	CYT	83	-5.853	-2.382	4.399	1.00	0.00
ATOM	894	O5'	CYT	83	-4.545	-4.169	5.571	1.00	0.00
ATOM	895	C5'	CYT	83	-3.302	-3.616	5.170	1.00	0.00
ATOM	896	C4'	CYT	83	-2.180	-4.637	5.396	1.00	0.00
ATOM	897	O4'	CYT	83	-2.158	-5.016	6.755	1.00	0.00
ATOM	898	C1'	CYT	83	-1.504	-6.260	6.885	1.00	0.00
ATOM	899	N1	CYT	83	-2.049	-6.973	8.066	1.00	0.00
ATOM	900	C6	CYT	83	-3.398	-6.945	8.301	1.00	0.00
ATOM	901	C5	CYT	83	-3.929	-7.402	9.456	1.00	0.00
ATOM	902	C4	CYT	83	-3.010	-7.948	10.415	1.00	0.00
ATOM	903	N4	CYT	83	-3.443	-8.378	11.600	1.00	0.00
ATOM	904	N3	CYT	83	-1.704	-8.068	10.136	1.00	0.00
ATOM	905	C2	CYT	83	-1.191	-7.616	8.955	1.00	0.00
ATOM	906	O2	CYT	83	-0.005	-7.799	8.688	1.00	0.00
ATOM	907	C3'	CYT	83	-2.401	-5.948	4.634	1.00	0.00
ATOM	908	C2'	CYT	83	-1.864	-7.005	5.602	1.00	0.00
ATOM	909	O3'	CYT	83	-1.718	-5.945	3.390	1.00	0.00
ATOM	910	P	THY	84	-1.882	-7.146	2.314	1.00	0.00
ATOM	911	OP1	THY	84	-1.343	-6.678	1.018	1.00	0.00
ATOM	912	OP2	THY	84	-3.271	-7.653	2.391	1.00	0.00
ATOM	913	O5'	THY	84	-0.904	-8.301	2.872	1.00	0.00
ATOM	914	C5'	THY	84	0.501	-8.138	2.871	1.00	0.00
ATOM	915	C4'	THY	84	1.167	-9.282	3.642	1.00	0.00
ATOM	916	O4'	THY	84	0.649	-9.342	4.960	1.00	0.00
ATOM	917	C1'	THY	84	0.632	-10.678	5.405	1.00	0.00
ATOM	918	N1	THY	84	-0.332	-10.819	6.540	1.00	0.00
ATOM	919	C6	THY	84	-1.653	-10.472	6.365	1.00	0.00
ATOM	920	C5	THY	84	-2.545	-10.557	7.383	1.00	0.00
ATOM	921	C7	THY	84	-3.989	-10.223	7.051	1.00	0.00
ATOM	922	C4	THY	84	-2.144	-10.976	8.706	1.00	0.00
ATOM	923	O4	THY	84	-2.892	-11.050	9.673	1.00	0.00
ATOM	924	N3	THY	84	-0.806	-11.322	8.817	1.00	0.00
ATOM	925	C2	THY	84	0.130	-11.260	7.786	1.00	0.00
ATOM	926	O2	THY	84	1.296	-11.587	7.994	1.00	0.00
ATOM	927	C3'	THY	84	0.925	-10.666	3.016	1.00	0.00
ATOM	928	C2'	THY	84	0.185	-11.408	4.136	1.00	0.00
ATOM	929	O3'	THY	84	2.178	-11.234	2.673	1.00	0.00
ATOM	930	P	ADE	85	2.333	-12.704	2.016	1.00	0.00
ATOM	931	OP1	ADE	85	3.615	-12.759	1.281	1.00	0.00
ATOM	932	OP2	ADE	85	1.071	-13.067	1.334	1.00	0.00
ATOM	933	O5'	ADE	85	2.475	-13.630	3.319	1.00	0.00
ATOM	934	C5'	ADE	85	3.532	-13.430	4.235	1.00	0.00
ATOM	935	C4'	ADE	85	3.246	-14.226	5.505	1.00	0.00
ATOM	936	O4'	ADE	85	1.987	-13.845	6.031	1.00	0.00

469

470

ATOM	937	C1'	ADE	85	1.351	-14.976	6.578	1.00	0.00
ATOM	938	N9	ADE	85	-0.106	-14.719	6.656	1.00	0.00
ATOM	939	C8	ADE	85	-0.974	-14.398	5.640	1.00	0.00
ATOM	940	N7	ADE	85	-2.172	-14.070	6.036	1.00	0.00
ATOM	941	C5	ADE	85	-2.102	-14.204	7.416	1.00	0.00
ATOM	942	C6	ADE	85	-3.038	-13.992	8.446	1.00	0.00
ATOM	943	N6	ADE	85	-4.276	-13.545	8.228	1.00	0.00
ATOM	944	N1	ADE	85	-2.656	-14.229	9.710	1.00	0.00
ATOM	945	C2	ADE	85	-1.416	-14.637	9.946	1.00	0.00
ATOM	946	N3	ADE	85	-0.439	-14.866	9.078	1.00	0.00
ATOM	947	C4	ADE	85	-0.853	-14.621	7.805	1.00	0.00
ATOM	948	C3'	ADE	85	3.171	-15.736	5.248	1.00	0.00
ATOM	949	C2'	ADE	85	1.703	-16.048	5.552	1.00	0.00
ATOM	950	O3'	ADE	85	4.101	-16.370	6.106	1.00	0.00
ATOM	951	P	ADE	86	4.256	-17.968	6.178	1.00	0.00
ATOM	952	OP1	ADE	86	5.649	-18.304	6.559	1.00	0.00
ATOM	953	OP2	ADE	86	3.658	-18.551	4.959	1.00	0.00
ATOM	954	O5'	ADE	86	3.302	-18.319	7.416	1.00	0.00
ATOM	955	C5'	ADE	86	3.616	-17.836	8.701	1.00	0.00
ATOM	956	C4'	ADE	86	2.593	-18.306	9.727	1.00	0.00
ATOM	957	O4'	ADE	86	1.320	-17.722	9.507	1.00	0.00
ATOM	958	C1'	ADE	86	0.317	-18.712	9.611	1.00	0.00
ATOM	959	N9	ADE	86	-0.867	-18.283	8.832	1.00	0.00
ATOM	960	C8	ADE	86	-0.972	-18.121	7.474	1.00	0.00
ATOM	961	N7	ADE	86	-2.120	-17.651	7.072	1.00	0.00
ATOM	962	C5	ADE	86	-2.832	-17.481	8.254	1.00	0.00
ATOM	963	C6	ADE	86	-4.125	-16.994	8.539	1.00	0.00
ATOM	964	N6	ADE	86	-4.962	-16.551	7.597	1.00	0.00
ATOM	965	N1	ADE	86	-4.516	-16.921	9.823	1.00	0.00
ATOM	966	C2	ADE	86	-3.680	-17.313	10.777	1.00	0.00
ATOM	967	N3	ADE	86	-2.441	-17.776	10.645	1.00	0.00
ATOM	968	C4	ADE	86	-2.071	-17.847	9.336	1.00	0.00
ATOM	969	C3'	ADE	86	2.379	-19.823	9.733	1.00	0.00
ATOM	970	C2'	ADE	86	1.013	-19.949	9.054	1.00	0.00
ATOM	971	O3'	ADE	86	2.403	-20.230	11.088	1.00	0.00
ATOM	972	P	CYT	87	2.221	-21.762	11.523	1.00	0.00
ATOM	973	OP1	CYT	87	3.125	-22.035	12.658	1.00	0.00
ATOM	974	OP2	CYT	87	2.297	-22.597	10.304	1.00	0.00
ATOM	975	O5'	CYT	87	0.722	-21.737	12.094	1.00	0.00
ATOM	976	C5'	CYT	87	0.462	-21.065	13.315	1.00	0.00
ATOM	977	C4'	CYT	87	-1.027	-21.026	13.638	1.00	0.00
ATOM	978	O4'	CYT	87	-1.731	-20.425	12.570	1.00	0.00
ATOM	979	C1'	CYT	87	-2.963	-21.089	12.407	1.00	0.00
ATOM	980	N1	CYT	87	-3.472	-20.867	11.031	1.00	0.00
ATOM	981	C6	CYT	87	-2.658	-21.092	9.947	1.00	0.00
ATOM	982	C5	CYT	87	-3.078	-20.846	8.685	1.00	0.00
ATOM	983	C4	CYT	87	-4.418	-20.365	8.526	1.00	0.00
ATOM	984	N4	CYT	87	-4.891	-20.045	7.321	1.00	0.00
ATOM	985	N3	CYT	87	-5.193	-20.112	9.588	1.00	0.00
ATOM	986	C2	CYT	87	-4.754	-20.352	10.853	1.00	0.00

(237)

特開2003-135087

471				472					
ATOM	987	O2	CYT	87	-5.490	-20.101	11.804	1.00	0.00
ATOM	988	C3'	CYT	87	-1.646	-22.418	13.840	1.00	0.00
ATOM	989	C2'	CYT	87	-2.571	-22.545	12.636	1.00	0.00
ATOM	990	O3'	CYT	87	-2.317	-22.418	15.087	1.00	0.00
ATOM	991	P	CYT	88	-3.072	-23.714	15.673	1.00	0.00
ATOM	992	OP1	CYT	88	-2.747	-23.782	17.117	1.00	0.00
ATOM	993	OP2	CYT	88	-2.780	-24.873	14.801	1.00	0.00
ATOM	994	O5'	CYT	88	-4.616	-23.301	15.493	1.00	0.00
ATOM	995	C5'	CYT	88	-5.183	-22.245	16.250	1.00	0.00
ATOM	996	C4'	CYT	88	-6.648	-22.023	15.863	1.00	0.00
ATOM	997	O4'	CYT	88	-6.739	-21.678	14.494	1.00	0.00
ATOM	998	C1'	CYT	88	-7.837	-22.332	13.892	1.00	0.00
ATOM	999	N1	CYT	88	-7.491	-22.595	12.476	1.00	0.00
ATOM	1000	C6	CYT	88	-6.274	-23.152	12.186	1.00	0.00
ATOM	1001	C5	CYT	88	-5.859	-23.348	10.919	1.00	0.00
ATOM	1002	C4	CYT	88	-6.768	-22.949	9.880	1.00	0.00
ATOM	1003	N4	CYT	88	-6.450	-23.088	8.596	1.00	0.00
ATOM	1004	N3	CYT	88	-7.972	-22.435	10.168	1.00	0.00
ATOM	1005	C2	CYT	88	-8.373	-22.252	11.456	1.00	0.00
ATOM	1006	O2	CYT	88	-9.494	-21.807	11.687	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.507	-23.279	16.060	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.928	-23.652	14.647	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.593	-22.955	16.914	1.00	0.00
ATOM	1010	P	CYT	89	-9.744	-24.016	17.315	1.00	0.00
ATOM	1011	OP1	CYT	89	-10.300	-23.623	18.628	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.213	-25.384	17.119	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.868	-23.746	16.189	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.599	-22.532	16.153	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.525	-22.504	14.932	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.763	-22.685	13.756	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.530	-23.364	12.784	1.00	0.00
ATOM	1018	N1	CYT	89	-11.604	-24.096	11.882	1.00	0.00
ATOM	1019	C6	CYT	89	-10.556	-24.794	12.421	1.00	0.00
ATOM	1020	C5	CYT	89	-9.583	-25.325	11.652	1.00	0.00
ATOM	1021	C4	CYT	89	-9.712	-25.149	10.233	1.00	0.00
ATOM	1022	N4	CYT	89	-8.768	-25.621	9.416	1.00	0.00
ATOM	1023	N3	CYT	89	-10.774	-24.524	9.702	1.00	0.00
ATOM	1024	C2	CYT	89	-11.749	-23.997	10.503	1.00	0.00
ATOM	1025	O2	CYT	89	-12.741	-23.470	10.008	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.568	-23.632	14.944	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.354	-24.342	13.610	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.868	-23.079	15.079	1.00	0.00
ATOM	1029	P	THY	90	-16.211	-23.982	15.123	1.00	0.00
ATOM	1030	OP1	THY	90	-17.186	-23.317	16.015	1.00	0.00
ATOM	1031	OP2	THY	90	-15.827	-25.390	15.371	1.00	0.00
ATOM	1032	O5'	THY	90	-16.763	-23.880	13.610	1.00	0.00
ATOM	1033	C5'	THY	90	-17.244	-22.656	13.087	1.00	0.00
ATOM	1034	C4'	THY	90	-17.601	-22.805	11.603	1.00	0.00
ATOM	1035	O4'	THY	90	-16.471	-23.298	10.908	1.00	0.00
ATOM	1036	C1'	THY	90	-16.856	-24.305	9.998	1.00	0.00

(238)

特開2003-135087

473

474

ATOM	1037	N1	THY	90	-15.700	-25.224	9.806	1.00	0.00
ATOM	1038	C6	THY	90	-15.190	-25.901	10.887	1.00	0.00
ATOM	1039	C5	THY	90	-14.070	-26.650	10.786	1.00	0.00
ATOM	1040	C7	THY	90	-13.633	-27.397	12.033	1.00	0.00
ATOM	1041	C4	THY	90	-13.335	-26.742	9.546	1.00	0.00
ATOM	1042	O4	THY	90	-12.275	-27.342	9.410	1.00	0.00
ATOM	1043	N3	THY	90	-13.921	-26.064	8.481	1.00	0.00
ATOM	1044	C2	THY	90	-15.091	-25.317	8.552	1.00	0.00
ATOM	1045	O2	THY	90	-15.542	-24.782	7.543	1.00	0.00
ATOM	1046	C3'	THY	90	-18.751	-23.793	11.344	1.00	0.00
ATOM	1047	C2'	THY	90	-18.036	-24.981	10.701	1.00	0.00
ATOM	1048	O3'	THY	90	-19.705	-23.190	10.484	1.00	0.00
ATOM	1049	P	ADE	91	-21.117	-23.893	10.126	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.508	-24.767	11.254	1.00	0.00
ATOM	1051	OP2	ADE	91	-22.047	-22.846	9.651	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.731	-24.829	8.875	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.480	-24.276	7.598	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.850	-25.319	6.670	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.609	-25.772	7.165	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.304	-26.948	6.454	1.00	0.00
ATOM	1057	N9	ADE	91	-17.231	-27.696	7.133	1.00	0.00
ATOM	1058	C8	ADE	91	-17.135	-28.006	8.463	1.00	0.00
ATOM	1059	N7	ADE	91	-16.029	-28.617	8.792	1.00	0.00
ATOM	1060	C5	ADE	91	-15.361	-28.751	7.577	1.00	0.00
ATOM	1061	C6	ADE	91	-14.120	-29.309	7.214	1.00	0.00
ATOM	1062	N6	ADE	91	-13.273	-29.825	8.107	1.00	0.00
ATOM	1063	N1	ADE	91	-13.781	-29.334	5.912	1.00	0.00
ATOM	1064	C2	ADE	91	-14.616	-28.815	5.015	1.00	0.00
ATOM	1065	N3	ADE	91	-15.785	-28.223	5.229	1.00	0.00
ATOM	1066	C4	ADE	91	-16.106	-28.224	6.552	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.680	-26.599	6.490	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.621	-27.708	6.524	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.387	-26.506	5.264	1.00	0.00
ATOM	1070	P	ADE	92	-22.310	-27.697	4.682	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.793	-28.519	5.814	1.00	0.00
ATOM	1072	OP2	ADE	92	-23.280	-27.108	3.732	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.254	-28.574	3.836	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.578	-28.030	2.717	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.490	-28.992	2.231	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.550	-29.239	3.265	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.136	-30.585	3.186	1.00	0.00
ATOM	1078	N9	ADE	92	-17.540	-31.028	4.466	1.00	0.00
ATOM	1079	C8	ADE	92	-18.076	-30.946	5.726	1.00	0.00
ATOM	1080	N7	ADE	92	-17.294	-31.375	6.677	1.00	0.00
ATOM	1081	C5	ADE	92	-16.156	-31.783	5.995	1.00	0.00
ATOM	1082	C6	ADE	92	-14.940	-32.349	6.424	1.00	0.00
ATOM	1083	N6	ADE	92	-14.689	-32.571	7.714	1.00	0.00
ATOM	1084	N1	ADE	92	-14.010	-32.671	5.504	1.00	0.00
ATOM	1085	C2	ADE	92	-14.283	-32.439	4.222	1.00	0.00
ATOM	1086	N3	ADE	92	-15.382	-31.910	3.690	1.00	0.00

(239)

特開2003-135087

475

476

ATOM	1087	C4	ADE	92	-16.297	-31.593	4.645	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.044	-30.367	1.819	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.468	-31.276	2.908	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.566	-30.680	0.521	1.00	0.00
ATOM	1091	P	CYT	93	-20.068	-31.978	-0.297	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.203	-31.606	-1.723	1.00	0.00
ATOM	1093	OP2	CYT	93	-21.213	-32.583	0.418	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.815	-32.976	-0.154	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.628	-32.779	-0.901	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.595	-33.834	-0.499	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.355	-33.731	0.885	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.957	-34.987	1.382	1.00	0.00
ATOM	1099	N1	CYT	93	-16.255	-35.035	2.836	1.00	0.00
ATOM	1100	C6	CYT	93	-17.454	-34.561	3.304	1.00	0.00
ATOM	1101	C5	CYT	93	-17.742	-34.530	4.623	1.00	0.00
ATOM	1102	C4	CYT	93	-16.728	-35.020	5.516	1.00	0.00
ATOM	1103	N4	CYT	93	-16.886	-34.941	6.838	1.00	0.00
ATOM	1104	N3	CYT	93	-15.569	-35.504	5.051	1.00	0.00
ATOM	1105	C2	CYT	93	-15.299	-35.532	3.717	1.00	0.00
ATOM	1106	O2	CYT	93	-14.230	-35.985	3.318	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.084	-35.273	-0.720	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.838	-35.975	0.615	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.347	-35.899	-1.750	1.00	0.00

END

HEADER 000000

REMARK	0.00536	1.68544	0.02557	0.01759	2.00480	1.73196
0.00000						

REMARK	2.71754	0.28324	0.50667	1.17201	0.75562
--------	---------	---------	---------	---------	---------

REMARK	0.01087	0.00432	0.00553	0.02058	0.00901
--------	---------	---------	---------	---------	---------

REMARK	117	113	4	0	0	0
0						

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.03732	0.17225	0.03478	0.04510	0.17225	0.15869
--------	---------	---------	---------	---------	---------	---------

REMARK	0.31897	0.02596
--------	---------	---------

REMARK	1	1	0	0	0	0
0						

ATOM	1	N	GLU	1	-6.519	-17.653	28.165	1.00	0.00
ATOM	2	CA	GLU	1	-6.516	-16.499	27.250	1.00	0.00
ATOM	3	CB	GLU	1	-6.835	-15.208	28.031	1.00	0.00
ATOM	4	CG	GLU	1	-7.090	-13.950	27.183	1.00	0.00
ATOM	5	CD	GLU	1	-8.112	-14.185	26.077	1.00	0.00
ATOM	6	OE1	GLU	1	-9.317	-14.028	26.359	1.00	0.00
ATOM	7	OE2	GLU	1	-7.667	-14.545	24.965	1.00	0.00
ATOM	8	C	GLU	1	-5.179	-16.451	26.505	1.00	0.00

(240)

特開2003-135087

477

478

ATOM	9	O	GLU	1	-4.263	-17.197	26.848	1.00	0.00
ATOM	10	N	LYS	2	-5.092	-15.592	25.488	1.00	0.00
ATOM	11	CA	LYS	2	-3.936	-15.377	24.625	1.00	0.00
ATOM	12	CB	LYS	2	-4.197	-14.131	23.774	1.00	0.00
ATOM	13	CG	LYS	2	-5.347	-14.396	22.795	1.00	0.00
ATOM	14	CD	LYS	2	-6.048	-13.093	22.391	1.00	0.00
ATOM	15	CE	LYS	2	-7.300	-13.428	21.575	1.00	0.00
ATOM	16	NZ	LYS	2	-8.398	-13.959	22.409	1.00	0.00
ATOM	17	C	LYS	2	-2.633	-15.224	25.414	1.00	0.00
ATOM	18	O	LYS	2	-2.618	-14.659	26.508	1.00	0.00
ATOM	19	N	HIS	3	-1.542	-15.741	24.843	1.00	0.00
ATOM	20	CA	HIS	3	-0.215	-15.701	25.438	1.00	0.00
ATOM	21	CB	HIS	3	0.594	-16.910	24.949	1.00	0.00
ATOM	22	CG	HIS	3	0.730	-17.013	23.449	1.00	0.00
ATOM	23	ND1	HIS	3	1.344	-16.041	22.672	1.00	0.00
ATOM	24	CE1	HIS	3	1.294	-16.458	21.396	1.00	0.00
ATOM	25	NE2	HIS	3	0.688	-17.640	21.263	1.00	0.00
ATOM	26	CD2	HIS	3	0.332	-17.982	22.562	1.00	0.00
ATOM	27	C	HIS	3	0.490	-14.382	25.117	1.00	0.00
ATOM	28	O	HIS	3	-0.005	-13.574	24.336	1.00	0.00
ATOM	29	N	ARG	4	1.666	-14.175	25.718	1.00	0.00
ATOM	30	CA	ARG	4	2.465	-12.978	25.501	1.00	0.00
ATOM	31	CB	ARG	4	3.580	-12.882	26.552	1.00	0.00
ATOM	32	CG	ARG	4	3.067	-12.900	28.002	1.00	0.00
ATOM	33	CD	ARG	4	1.974	-11.861	28.288	1.00	0.00
ATOM	34	NE	ARG	4	2.411	-10.504	27.931	1.00	0.00
ATOM	35	CZ	ARG	4	1.616	-9.421	27.906	1.00	0.00
ATOM	36	NH1	ARG	4	2.125	-8.232	27.555	1.00	0.00
ATOM	37	NH2	ARG	4	0.320	-9.520	28.233	1.00	0.00
ATOM	38	C	ARG	4	3.031	-12.989	24.079	1.00	0.00
ATOM	39	O	ARG	4	2.809	-12.048	23.323	1.00	0.00
ATOM	40	N	ALA	5	3.752	-14.060	23.727	1.00	0.00
ATOM	41	CA	ALA	5	4.356	-14.257	22.418	1.00	0.00
ATOM	42	CB	ALA	5	5.532	-13.295	22.215	1.00	0.00
ATOM	43	C	ALA	5	4.832	-15.705	22.311	1.00	0.00
ATOM	44	O	ALA	5	5.153	-16.324	23.325	1.00	0.00
ATOM	45	N	ARG	6	4.878	-16.228	21.084	1.00	0.00
ATOM	46	CA	ARG	6	5.318	-17.569	20.725	1.00	0.00
ATOM	47	CB	ARG	6	4.219	-18.625	20.936	1.00	0.00
ATOM	48	CG	ARG	6	3.885	-18.921	22.400	1.00	0.00
ATOM	49	CD	ARG	6	2.961	-20.140	22.461	1.00	0.00
ATOM	50	NE	ARG	6	2.439	-20.347	23.819	1.00	0.00
ATOM	51	CZ	ARG	6	1.421	-21.164	24.129	1.00	0.00
ATOM	52	NH1	ARG	6	1.022	-21.273	25.404	1.00	0.00
ATOM	53	NH2	ARG	6	0.800	-21.871	23.174	1.00	0.00
ATOM	54	C	ARG	6	5.659	-17.468	19.244	1.00	0.00
ATOM	55	O	ARG	6	4.830	-17.821	18.406	1.00	0.00
ATOM	56	N	LYS	7	6.858	-16.953	18.938	1.00	0.00
ATOM	57	CA	LYS	7	7.309	-16.717	17.575	1.00	0.00
ATOM	58	CB	LYS	7	8.788	-16.310	17.538	1.00	0.00

479

480

ATOM	59	CG	LYS	7	9.065	-15.584	16.215	1.00	0.00
ATOM	60	CD	LYS	7	10.526	-15.130	16.101	1.00	0.00
ATOM	61	CE	LYS	7	10.670	-14.050	15.020	1.00	0.00
ATOM	62	NZ	LYS	7	10.178	-14.498	13.704	1.00	0.00
ATOM	63	C	LYS	7	6.993	-17.885	16.639	1.00	0.00
ATOM	64	O	LYS	7	7.642	-18.928	16.690	1.00	0.00
ATOM	65	N	ARG	8	5.979	-17.682	15.793	1.00	0.00
ATOM	66	CA	ARG	8	5.493	-18.649	14.824	1.00	0.00
ATOM	67	CB	ARG	8	4.343	-18.018	14.039	1.00	0.00
ATOM	68	CG	ARG	8	3.057	-18.034	14.869	1.00	0.00
ATOM	69	CD	ARG	8	1.923	-17.380	14.078	1.00	0.00
ATOM	70	NE	ARG	8	0.623	-17.654	14.699	1.00	0.00
ATOM	71	CZ	ARG	8	-0.517	-17.025	14.379	1.00	0.00
ATOM	72	NH1	ARG	8	-0.517	-16.038	13.478	1.00	0.00
ATOM	73	NH2	ARG	8	-1.667	-17.362	14.976	1.00	0.00
ATOM	74	C	ARG	8	6.602	-19.092	13.876	1.00	0.00
ATOM	75	O	ARG	8	7.522	-18.324	13.585	1.00	0.00
ATOM	76	N	GLN	9	6.506	-20.334	13.391	1.00	0.00
ATOM	77	CA	GLN	9	7.494	-20.879	12.479	1.00	0.00
ATOM	78	CB	GLN	9	7.707	-22.386	12.681	1.00	0.00
ATOM	79	CG	GLN	9	6.438	-23.253	12.689	1.00	0.00
ATOM	80	CD	GLN	9	6.762	-24.721	12.424	1.00	0.00
ATOM	81	OE1	GLN	9	7.929	-25.104	12.376	1.00	0.00
ATOM	82	NE2	GLN	9	5.736	-25.549	12.220	1.00	0.00
ATOM	83	C	GLN	9	7.148	-20.508	11.039	1.00	0.00
ATOM	84	O	GLN	9	6.592	-21.317	10.296	1.00	0.00
ATOM	85	N	ALA	10	7.507	-19.281	10.640	1.00	0.00
ATOM	86	CA	ALA	10	7.292	-18.814	9.277	1.00	0.00
ATOM	87	CB	ALA	10	7.836	-17.394	9.108	1.00	0.00
ATOM	88	C	ALA	10	7.982	-19.801	8.338	1.00	0.00
ATOM	89	O	ALA	10	9.092	-20.247	8.632	1.00	0.00
ATOM	90	N	TRP	11	7.324	-20.177	7.239	1.00	0.00
ATOM	91	CA	TRP	11	7.903	-21.163	6.341	1.00	0.00
ATOM	92	CB	TRP	11	6.926	-21.572	5.245	1.00	0.00
ATOM	93	CG	TRP	11	5.741	-22.392	5.666	1.00	0.00
ATOM	94	CD1	TRP	11	4.843	-22.078	6.628	1.00	0.00
ATOM	95	NE1	TRP	11	3.884	-23.062	6.722	1.00	0.00
ATOM	96	CE2	TRP	11	4.121	-24.073	5.817	1.00	0.00
ATOM	97	CZ2	TRP	11	3.450	-25.264	5.519	1.00	0.00
ATOM	98	CH2	TRP	11	3.951	-26.104	4.523	1.00	0.00
ATOM	99	CZ3	TRP	11	5.119	-25.750	3.826	1.00	0.00
ATOM	100	CE3	TRP	11	5.784	-24.547	4.127	1.00	0.00
ATOM	101	CD2	TRP	11	5.306	-23.677	5.132	1.00	0.00
ATOM	102	C	TRP	11	9.221	-20.673	5.746	1.00	0.00
ATOM	103	O	TRP	11	9.356	-19.516	5.349	1.00	0.00
ATOM	104	N	LEU	12	10.185	-21.590	5.704	1.00	0.00
ATOM	105	CA	LEU	12	11.527	-21.384	5.188	1.00	0.00
ATOM	106	CB	LEU	12	12.482	-22.247	6.031	1.00	0.00
ATOM	107	CG	LEU	12	13.972	-22.146	5.668	1.00	0.00
ATOM	108	CD1	LEU	12	14.522	-20.728	5.864	1.00	0.00

(242)

特開2003-135087

481

482

ATOM	109	CD2	LEU	12	14.768	-23.121	6.542	1.00	0.00
ATOM	110	C	LEU	12	11.534	-21.789	3.713	1.00	0.00
ATOM	111	O	LEU	12	10.676	-22.573	3.296	1.00	0.00
ATOM	112	N	TRP	13	12.498	-21.276	2.926	1.00	0.00
ATOM	113	CA	TRP	13	12.577	-21.634	1.514	1.00	0.00
ATOM	114	CB	TRP	13	13.840	-21.169	0.758	1.00	0.00
ATOM	115	CG	TRP	13	15.064	-21.962	1.108	1.00	0.00
ATOM	116	CD1	TRP	13	15.662	-21.812	2.284	1.00	0.00
ATOM	117	NE1	TRP	13	16.747	-22.639	2.427	1.00	0.00
ATOM	118	CE2	TRP	13	16.889	-23.418	1.301	1.00	0.00
ATOM	119	CZ2	TRP	13	17.805	-24.421	0.958	1.00	0.00
ATOM	120	CH2	TRP	13	17.670	-25.071	-0.273	1.00	0.00
ATOM	121	CZ3	TRP	13	16.630	-24.702	-1.141	1.00	0.00
ATOM	122	CE3	TRP	13	15.720	-23.685	-0.799	1.00	0.00
ATOM	123	CD2	TRP	13	15.822	-23.014	0.434	1.00	0.00
ATOM	124	C	TRP	13	12.541	-23.140	1.380	1.00	0.00
ATOM	125	O	TRP	13	11.803	-23.596	0.541	1.00	0.00
ATOM	126	N	GLU	14	13.326	-23.905	2.156	1.00	0.00
ATOM	127	CA	GLU	14	13.380	-25.343	1.987	1.00	0.00
ATOM	128	CB	GLU	14	14.573	-25.985	2.696	1.00	0.00
ATOM	129	CG	GLU	14	14.812	-27.418	2.187	1.00	0.00
ATOM	130	CD	GLU	14	16.292	-27.715	1.976	1.00	0.00
ATOM	131	OE1	GLU	14	16.641	-28.036	0.816	1.00	0.00
ATOM	132	OE2	GLU	14	17.047	-27.606	2.966	1.00	0.00
ATOM	133	C	GLU	14	12.012	-26.006	2.145	1.00	0.00
ATOM	134	O	GLU	14	11.727	-26.959	1.423	1.00	0.00
ATOM	135	N	GLU	15	11.142	-25.499	3.029	1.00	0.00
ATOM	136	CA	GLU	15	9.802	-26.053	3.159	1.00	0.00
ATOM	137	CB	GLU	15	9.086	-25.550	4.417	1.00	0.00
ATOM	138	CG	GLU	15	9.708	-26.047	5.726	1.00	0.00
ATOM	139	CD	GLU	15	8.748	-25.800	6.886	1.00	0.00
ATOM	140	OE1	GLU	15	8.740	-24.657	7.392	1.00	0.00
ATOM	141	OE2	GLU	15	7.999	-26.742	7.232	1.00	0.00
ATOM	142	C	GLU	15	8.994	-25.718	1.899	1.00	0.00
ATOM	143	O	GLU	15	8.384	-26.606	1.315	1.00	0.00
ATOM	144	N	ASP	16	8.988	-24.452	1.465	1.00	0.00
ATOM	145	CA	ASP	16	8.251	-24.017	0.271	1.00	0.00
ATOM	146	CB	ASP	16	8.363	-22.492	0.134	1.00	0.00
ATOM	147	CG	ASP	16	7.704	-21.736	1.278	1.00	0.00
ATOM	148	OD1	ASP	16	6.721	-22.264	1.838	1.00	0.00
ATOM	149	OD2	ASP	16	8.162	-20.608	1.557	1.00	0.00
ATOM	150	C	ASP	16	8.767	-24.675	-1.017	1.00	0.00
ATOM	151	O	ASP	16	8.004	-25.012	-1.918	1.00	0.00
ATOM	152	N	LYS	17	10.085	-24.838	-1.081	1.00	0.00
ATOM	153	CA	LYS	17	10.914	-25.408	-2.127	1.00	0.00
ATOM	154	CB	LYS	17	12.398	-25.177	-1.724	1.00	0.00
ATOM	155	CG	LYS	17	13.401	-25.972	-2.577	1.00	0.00
ATOM	156	CD	LYS	17	14.056	-27.061	-1.711	1.00	0.00
ATOM	157	CE	LYS	17	15.059	-27.922	-2.482	1.00	0.00
ATOM	158	NZ	LYS	17	15.737	-28.874	-1.581	1.00	0.00

(243)

特開2003-135087

483

484

ATOM	159	C	LYS	17	10.511	-26.883	-2.249	1.00	0.00
ATOM	160	O	LYS	17	10.128	-27.354	-3.322	1.00	0.00
ATOM	161	N	ASN	18	10.577	-27.599	-1.122	1.00	0.00
ATOM	162	CA	ASN	18	10.201	-28.999	-1.002	1.00	0.00
ATOM	163	CB	ASN	18	10.465	-29.441	0.444	1.00	0.00
ATOM	164	CG	ASN	18	10.076	-30.882	0.746	1.00	0.00
ATOM	165	OD1	ASN	18	9.972	-31.710	-0.154	1.00	0.00
ATOM	166	ND2	ASN	18	9.883	-31.179	2.032	1.00	0.00
ATOM	167	C	ASN	18	8.731	-29.163	-1.395	1.00	0.00
ATOM	168	O	ASN	18	8.385	-30.072	-2.147	1.00	0.00
ATOM	169	N	LEU	19	7.866	-28.270	-0.901	1.00	0.00
ATOM	170	CA	LEU	19	6.442	-28.284	-1.192	1.00	0.00
ATOM	171	CB	LEU	19	5.713	-27.193	-0.394	1.00	0.00
ATOM	172	CG	LEU	19	4.184	-27.281	-0.522	1.00	0.00
ATOM	173	CD1	LEU	19	3.664	-28.624	-0.001	1.00	0.00
ATOM	174	CD2	LEU	19	3.542	-26.137	0.271	1.00	0.00
ATOM	175	C	LEU	19	6.207	-28.135	-2.690	1.00	0.00
ATOM	176	O	LEU	19	5.421	-28.886	-3.256	1.00	0.00
ATOM	177	N	ARG	20	6.888	-27.185	-3.342	1.00	0.00
ATOM	178	CA	ARG	20	6.755	-26.968	-4.774	1.00	0.00
ATOM	179	CB	ARG	20	7.559	-25.730	-5.202	1.00	0.00
ATOM	180	CG	ARG	20	7.186	-25.278	-6.622	1.00	0.00
ATOM	181	CD	ARG	20	7.655	-23.841	-6.893	1.00	0.00
ATOM	182	NE	ARG	20	7.114	-23.348	-8.173	1.00	0.00
ATOM	183	CZ	ARG	20	6.626	-22.116	-8.409	1.00	0.00
ATOM	184	NH1	ARG	20	5.986	-21.859	-9.556	1.00	0.00
ATOM	185	NH2	ARG	20	6.743	-21.129	-7.511	1.00	0.00
ATOM	186	C	ARG	20	7.134	-28.243	-5.528	1.00	0.00
ATOM	187	O	ARG	20	6.433	-28.632	-6.462	1.00	0.00
ATOM	188	N	SER	21	8.217	-28.911	-5.107	1.00	0.00
ATOM	189	CA	SER	21	8.643	-30.169	-5.710	1.00	0.00
ATOM	190	CB	SER	21	9.960	-30.639	-5.080	1.00	0.00
ATOM	191	OG	SER	21	10.484	-31.731	-5.809	1.00	0.00
ATOM	192	C	SER	21	7.530	-31.218	-5.551	1.00	0.00
ATOM	193	O	SER	21	7.137	-31.881	-6.512	1.00	0.00
ATOM	194	N	GLY	22	7.012	-31.358	-4.327	1.00	0.00
ATOM	195	CA	GLY	22	5.952	-32.295	-4.005	1.00	0.00
ATOM	196	C	GLY	22	4.709	-32.066	-4.862	1.00	0.00
ATOM	197	O	GLY	22	4.202	-33.003	-5.470	1.00	0.00
ATOM	198	N	VAL	23	4.211	-30.828	-4.917	1.00	0.00
ATOM	199	CA	VAL	23	3.023	-30.500	-5.686	1.00	0.00
ATOM	200	CB	VAL	23	2.461	-29.119	-5.322	1.00	0.00
ATOM	201	CG1	VAL	23	1.200	-28.859	-6.158	1.00	0.00
ATOM	202	CG2	VAL	23	2.061	-29.073	-3.843	1.00	0.00
ATOM	203	C	VAL	23	3.256	-30.672	-7.186	1.00	0.00
ATOM	204	O	VAL	23	2.367	-31.172	-7.862	1.00	0.00
ATOM	205	N	ARG	24	4.410	-30.300	-7.752	1.00	0.00
ATOM	206	CA	ARG	24	4.575	-30.532	-9.186	1.00	0.00
ATOM	207	CB	ARG	24	5.785	-29.800	-9.777	1.00	0.00
ATOM	208	CG	ARG	24	7.150	-30.365	-9.379	1.00	0.00

485					486				
ATOM	209	CD	ARG	24	8.296	-29.577	-10.020	1.00	0.00
ATOM	210	NE	ARG	24	8.294	-29.716	-11.485	1.00	0.00
ATOM	211	CZ	ARG	24	9.174	-29.132	-12.314	1.00	0.00
ATOM	212	NH1	ARG	24	9.071	-29.326	-13.635	1.00	0.00
ATOM	213	NH2	ARG	24	10.156	-28.361	-11.827	1.00	0.00
ATOM	214	C	ARG	24	4.559	-32.038	-9.485	1.00	0.00
ATOM	215	O	ARG	24	4.075	-32.454	-10.536	1.00	0.00
ATOM	216	N	LYS	25	5.076	-32.848	-8.554	1.00	0.00
ATOM	217	CA	LYS	25	5.124	-34.302	-8.677	1.00	0.00
ATOM	218	CB	LYS	25	6.274	-34.865	-7.830	1.00	0.00
ATOM	219	CG	LYS	25	7.632	-34.489	-8.440	1.00	0.00
ATOM	220	CD	LYS	25	8.823	-34.962	-7.591	1.00	0.00
ATOM	221	CE	LYS	25	8.907	-36.485	-7.413	1.00	0.00
ATOM	222	NZ	LYS	25	8.992	-37.202	-8.699	1.00	0.00
ATOM	223	C	LYS	25	3.798	-35.027	-8.386	1.00	0.00
ATOM	224	O	LYS	25	3.552	-36.061	-9.005	1.00	0.00
ATOM	225	N	TYR	26	2.965	-34.541	-7.453	1.00	0.00
ATOM	226	CA	TYR	26	1.710	-35.195	-7.055	1.00	0.00
ATOM	227	CB	TYR	26	1.794	-35.575	-5.569	1.00	0.00
ATOM	228	CG	TYR	26	2.749	-36.720	-5.283	1.00	0.00
ATOM	229	CD1	TYR	26	2.249	-38.003	-4.991	1.00	0.00
ATOM	230	CE1	TYR	26	3.136	-39.063	-4.735	1.00	0.00
ATOM	231	CZ	TYR	26	4.523	-38.846	-4.771	1.00	0.00
ATOM	232	OH	TYR	26	5.379	-39.879	-4.522	1.00	0.00
ATOM	233	CE2	TYR	26	5.025	-37.567	-5.065	1.00	0.00
ATOM	234	CD2	TYR	26	4.139	-36.508	-5.316	1.00	0.00
ATOM	235	C	TYR	26	0.443	-34.373	-7.317	1.00	0.00
ATOM	236	O	TYR	26	-0.628	-34.950	-7.495	1.00	0.00
ATOM	237	N	GLY	27	0.549	-33.045	-7.330	1.00	0.00
ATOM	238	CA	GLY	27	-0.561	-32.121	-7.541	1.00	0.00
ATOM	239	C	GLY	27	-1.250	-31.789	-6.216	1.00	0.00
ATOM	240	O	GLY	27	-1.131	-32.544	-5.251	1.00	0.00
ATOM	241	N	GLU	28	-1.979	-30.666	-6.154	1.00	0.00
ATOM	242	CA	GLU	28	-2.702	-30.276	-4.948	1.00	0.00
ATOM	243	CB	GLU	28	-3.247	-28.834	-5.030	1.00	0.00
ATOM	244	CG	GLU	28	-3.658	-28.327	-6.422	1.00	0.00
ATOM	245	CD	GLU	28	-2.491	-27.670	-7.152	1.00	0.00
ATOM	246	OE1	GLU	28	-1.742	-28.422	-7.809	1.00	0.00
ATOM	247	OE2	GLU	28	-2.358	-26.428	-7.026	1.00	0.00
ATOM	248	C	GLU	28	-3.786	-31.316	-4.625	1.00	0.00
ATOM	249	O	GLU	28	-4.200	-32.083	-5.492	1.00	0.00
ATOM	250	N	GLY	29	-4.227	-31.355	-3.363	1.00	0.00
ATOM	251	CA	GLY	29	-5.219	-32.314	-2.891	1.00	0.00
ATOM	252	C	GLY	29	-4.567	-33.685	-2.704	1.00	0.00
ATOM	253	O	GLY	29	-5.132	-34.712	-3.077	1.00	0.00
ATOM	254	N	ASN	30	-3.362	-33.675	-2.124	1.00	0.00
ATOM	255	CA	ASN	30	-2.517	-34.825	-1.834	1.00	0.00
ATOM	256	CB	ASN	30	-1.702	-35.206	-3.086	1.00	0.00
ATOM	257	CG	ASN	30	-2.569	-35.709	-4.237	1.00	0.00
ATOM	258	OD1	ASN	30	-3.070	-36.831	-4.195	1.00	0.00

(245)

特開2003-135087

487

488

ATOM	259	ND2	ASN	30	-2.754	-34.894	-5.271	1.00	0.00
ATOM	260	C	ASN	30	-1.584	-34.378	-0.708	1.00	0.00
ATOM	261	O	ASN	30	-0.391	-34.653	-0.749	1.00	0.00
ATOM	262	N	TRP	31	-2.110	-33.646	0.280	1.00	0.00
ATOM	263	CA	TRP	31	-1.324	-33.067	1.360	1.00	0.00
ATOM	264	CB	TRP	31	-2.098	-31.928	2.018	1.00	0.00
ATOM	265	CG	TRP	31	-2.677	-30.994	1.011	1.00	0.00
ATOM	266	CD1	TRP	31	-3.987	-30.788	0.764	1.00	0.00
ATOM	267	NE1	TRP	31	-4.126	-29.867	-0.256	1.00	0.00
ATOM	268	CE2	TRP	31	-2.894	-29.437	-0.709	1.00	0.00
ATOM	269	CZ2	TRP	31	-2.494	-28.534	-1.702	1.00	0.00
ATOM	270	CH2	TRP	31	-1.125	-28.323	-1.916	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.174	-29.004	-1.149	1.00	0.00
ATOM	272	CE3	TRP	31	-0.582	-29.909	-0.160	1.00	0.00
ATOM	273	CD2	TRP	31	-1.950	-30.145	0.087	1.00	0.00
ATOM	274	C	TRP	31	-0.785	-34.091	2.344	1.00	0.00
ATOM	275	O	TRP	31	0.424	-34.144	2.540	1.00	0.00
ATOM	276	N	SER	32	-1.645	-34.910	2.951	1.00	0.00
ATOM	277	CA	SER	32	-1.178	-35.939	3.882	1.00	0.00
ATOM	278	CB	SER	32	-2.360	-36.706	4.483	1.00	0.00
ATOM	279	OG	SER	32	-3.097	-35.838	5.314	1.00	0.00
ATOM	280	C	SER	32	-0.198	-36.877	3.168	1.00	0.00
ATOM	281	O	SER	32	0.790	-37.328	3.748	1.00	0.00
ATOM	282	N	LYS	33	-0.465	-37.146	1.887	1.00	0.00
ATOM	283	CA	LYS	33	0.370	-37.979	1.041	1.00	0.00
ATOM	284	CB	LYS	33	-0.315	-38.196	-0.317	1.00	0.00
ATOM	285	CG	LYS	33	-1.756	-38.720	-0.168	1.00	0.00
ATOM	286	CD	LYS	33	-2.468	-38.765	-1.525	1.00	0.00
ATOM	287	CE	LYS	33	-3.990	-38.642	-1.348	1.00	0.00
ATOM	288	NZ	LYS	33	-4.676	-38.425	-2.635	1.00	0.00
ATOM	289	C	LYS	33	1.737	-37.297	0.915	1.00	0.00
ATOM	290	O	LYS	33	2.761	-37.902	1.216	1.00	0.00
ATOM	291	N	ILE	34	1.751	-36.022	0.503	1.00	0.00
ATOM	292	CA	ILE	34	2.957	-35.211	0.372	1.00	0.00
ATOM	293	CB	ILE	34	2.600	-33.818	-0.199	1.00	0.00
ATOM	294	CG2	ILE	34	3.615	-32.729	0.173	1.00	0.00
ATOM	295	CG1	ILE	34	2.465	-33.923	-1.731	1.00	0.00
ATOM	296	CD1	ILE	34	1.800	-32.697	-2.367	1.00	0.00
ATOM	297	C	ILE	34	3.709	-35.168	1.710	1.00	0.00
ATOM	298	O	ILE	34	4.934	-35.184	1.708	1.00	0.00
ATOM	299	N	LEU	35	2.999	-35.138	2.843	1.00	0.00
ATOM	300	CA	LEU	35	3.589	-35.137	4.177	1.00	0.00
ATOM	301	CB	LEU	35	2.482	-34.942	5.228	1.00	0.00
ATOM	302	CG	LEU	35	2.919	-34.239	6.525	1.00	0.00
ATOM	303	CD1	LEU	35	1.716	-34.197	7.476	1.00	0.00
ATOM	304	CD2	LEU	35	4.093	-34.918	7.235	1.00	0.00
ATOM	305	C	LEU	35	4.343	-36.456	4.391	1.00	0.00
ATOM	306	O	LEU	35	5.443	-36.472	4.937	1.00	0.00
ATOM	307	N	LEU	36	3.756	-37.578	3.953	1.00	0.00
ATOM	308	CA	LEU	36	4.384	-38.884	4.088	1.00	0.00

489					490				
ATOM	309	CB	LEU	36	3.354	-39.984	3.780	1.00	0.00
ATOM	310	CG	LEU	36	3.911	-41.415	3.881	1.00	0.00
ATOM	311	CD1	LEU	36	4.393	-41.750	5.297	1.00	0.00
ATOM	312	CD2	LEU	36	2.816	-42.405	3.471	1.00	0.00
ATOM	313	C	LEU	36	5.616	-38.979	3.180	1.00	0.00
ATOM	314	O	LEU	36	6.675	-39.428	3.616	1.00	0.00
ATOM	315	N	HIS	37	5.475	-38.564	1.916	1.00	0.00
ATOM	316	CA	HIS	37	6.538	-38.607	0.919	1.00	0.00
ATOM	317	CB	HIS	37	5.957	-38.289	-0.465	1.00	0.00
ATOM	318	CG	HIS	37	4.860	-39.226	-0.905	1.00	0.00
ATOM	319	ND1	HIS	37	5.008	-40.603	-0.908	1.00	0.00
ATOM	320	CE1	HIS	37	3.852	-41.128	-1.349	1.00	0.00
ATOM	321	NE2	HIS	37	2.940	-40.199	-1.643	1.00	0.00
ATOM	322	CD2	HIS	37	3.585	-38.999	-1.361	1.00	0.00
ATOM	323	C	HIS	37	7.696	-37.654	1.234	1.00	0.00
ATOM	324	O	HIS	37	8.849	-37.998	0.982	1.00	0.00
ATOM	325	N	TYR	38	7.394	-36.460	1.755	1.00	0.00
ATOM	326	CA	TYR	38	8.363	-35.423	2.076	1.00	0.00
ATOM	327	CB	TYR	38	8.268	-34.294	1.045	1.00	0.00
ATOM	328	CG	TYR	38	8.259	-34.713	-0.411	1.00	0.00
ATOM	329	CD1	TYR	38	7.034	-34.917	-1.072	1.00	0.00
ATOM	330	CE1	TYR	38	7.014	-35.299	-2.422	1.00	0.00
ATOM	331	CZ	TYR	38	8.223	-35.474	-3.115	1.00	0.00
ATOM	332	OH	TYR	38	8.203	-35.838	-4.427	1.00	0.00
ATOM	333	CE2	TYR	38	9.448	-35.273	-2.460	1.00	0.00
ATOM	334	CD2	TYR	38	9.468	-34.892	-1.107	1.00	0.00
ATOM	335	C	TYR	38	8.084	-34.861	3.468	1.00	0.00
ATOM	336	O	TYR	38	6.961	-34.456	3.758	1.00	0.00
ATOM	337	N	LYS	39	9.102	-34.827	4.334	1.00	0.00
ATOM	338	CA	LYS	39	8.973	-34.328	5.696	1.00	0.00
ATOM	339	CB	LYS	39	9.985	-35.081	6.579	1.00	0.00
ATOM	340	CG	LYS	39	9.711	-34.978	8.088	1.00	0.00
ATOM	341	CD	LYS	39	10.504	-33.846	8.758	1.00	0.00
ATOM	342	CE	LYS	39	10.252	-33.782	10.274	1.00	0.00
ATOM	343	NZ	LYS	39	8.834	-33.533	10.597	1.00	0.00
ATOM	344	C	LYS	39	9.155	-32.805	5.736	1.00	0.00
ATOM	345	O	LYS	39	10.081	-32.273	5.127	1.00	0.00
ATOM	346	N	PHE	40	8.269	-32.120	6.470	1.00	0.00
ATOM	347	CA	PHE	40	8.256	-30.671	6.686	1.00	0.00
ATOM	348	CB	PHE	40	6.997	-30.063	6.056	1.00	0.00
ATOM	349	CG	PHE	40	6.809	-30.309	4.576	1.00	0.00
ATOM	350	CD1	PHE	40	6.169	-31.478	4.128	1.00	0.00
ATOM	351	CE1	PHE	40	5.989	-31.700	2.752	1.00	0.00
ATOM	352	CZ	PHE	40	6.446	-30.754	1.820	1.00	0.00
ATOM	353	CE2	PHE	40	7.085	-29.588	2.271	1.00	0.00
ATOM	354	CD2	PHE	40	7.268	-29.363	3.644	1.00	0.00
ATOM	355	C	PHE	40	8.244	-30.426	8.198	1.00	0.00
ATOM	356	O	PHE	40	8.327	-31.387	8.965	1.00	0.00
ATOM	357	N	ASN	41	8.118	-29.175	8.662	1.00	0.00
ATOM	358	CA	ASN	41	8.076	-28.877	10.093	1.00	0.00

491				492				
ATOM	359	CB	ASN	41	8.424	-27.412	10.380	1.00 0.00
ATOM	360	CG	ASN	41	9.825	-26.968	9.973	1.00 0.00
ATOM	361	OD1	ASN	41	10.562	-27.689	9.304	1.00 0.00
ATOM	362	ND2	ASN	41	10.196	-25.764	10.407	1.00 0.00
ATOM	363	C	ASN	41	6.692	-29.198	10.674	1.00 0.00
ATOM	364	O	ASN	41	5.993	-28.310	11.161	1.00 0.00
ATOM	365	N	ASN	42	6.306	-30.479	10.618	1.00 0.00
ATOM	366	CA	ASN	42	5.043	-31.022	11.105	1.00 0.00
ATOM	367	CB	ASN	42	5.039	-31.086	12.640	1.00 0.00
ATOM	368	CG	ASN	42	6.177	-31.934	13.215	1.00 0.00
ATOM	369	OD1	ASN	42	6.942	-32.570	12.488	1.00 0.00
ATOM	370	ND2	ASN	42	6.298	-31.948	14.542	1.00 0.00
ATOM	371	C	ASN	42	3.865	-30.233	10.527	1.00 0.00
ATOM	372	O	ASN	42	2.956	-29.825	11.248	1.00 0.00
ATOM	373	N	ARG	43	3.903	-30.020	9.209	1.00 0.00
ATOM	374	CA	ARG	43	2.893	-29.282	8.472	1.00 0.00
ATOM	375	CB	ARG	43	3.519	-28.693	7.200	1.00 0.00
ATOM	376	CG	ARG	43	4.787	-27.871	7.479	1.00 0.00
ATOM	377	CD	ARG	43	4.528	-26.695	8.420	1.00 0.00
ATOM	378	NE	ARG	43	5.654	-25.750	8.413	1.00 0.00
ATOM	379	CZ	ARG	43	5.616	-24.541	8.996	1.00 0.00
ATOM	380	NH1	ARG	43	6.675	-23.730	8.931	1.00 0.00
ATOM	381	NH2	ARG	43	4.506	-24.159	9.638	1.00 0.00
ATOM	382	C	ARG	43	1.725	-30.216	8.159	1.00 0.00
ATOM	383	O	ARG	43	1.873	-31.148	7.373	1.00 0.00
ATOM	384	N	THR	44	0.572	-29.969	8.787	1.00 0.00
ATOM	385	CA	THR	44	-0.640	-30.762	8.627	1.00 0.00
ATOM	386	CB	THR	44	-1.687	-30.312	9.666	1.00 0.00
ATOM	387	CG2	THR	44	-1.093	-30.066	11.058	1.00 0.00
ATOM	388	OG1	THR	44	-2.320	-29.119	9.247	1.00 0.00
ATOM	389	C	THR	44	-1.211	-30.623	7.211	1.00 0.00
ATOM	390	O	THR	44	-0.763	-29.773	6.444	1.00 0.00
ATOM	391	N	SER	45	-2.224	-31.433	6.872	1.00 0.00
ATOM	392	CA	SER	45	-2.898	-31.366	5.576	1.00 0.00
ATOM	393	CB	SER	45	-4.041	-32.395	5.534	1.00 0.00
ATOM	394	OG	SER	45	-4.782	-32.328	4.329	1.00 0.00
ATOM	395	C	SER	45	-3.401	-29.932	5.361	1.00 0.00
ATOM	396	O	SER	45	-3.210	-29.344	4.297	1.00 0.00
ATOM	397	N	VAL	46	-4.020	-29.369	6.408	1.00 0.00
ATOM	398	CA	VAL	46	-4.539	-28.010	6.432	1.00 0.00
ATOM	399	CB	VAL	46	-5.280	-27.759	7.760	1.00 0.00
ATOM	400	CG1	VAL	46	-5.768	-26.312	7.861	1.00 0.00
ATOM	401	CG2	VAL	46	-6.482	-28.694	7.928	1.00 0.00
ATOM	402	C	VAL	46	-3.395	-27.007	6.263	1.00 0.00
ATOM	403	O	VAL	46	-3.504	-26.085	5.460	1.00 0.00
ATOM	404	N	MET	47	-2.310	-27.170	7.031	1.00 0.00
ATOM	405	CA	MET	47	-1.163	-26.272	7.000	1.00 0.00
ATOM	406	CB	MET	47	-0.162	-26.709	8.080	1.00 0.00
ATOM	407	CG	MET	47	0.789	-25.620	8.590	1.00 0.00
ATOM	408	SD	MET	47	0.068	-24.153	9.376	1.00 0.00

493					494				
ATOM	409	CE	MET	47	0.057	-23.014	7.969	1.00	0.00
ATOM	410	C	MET	47	-0.569	-26.192	5.591	1.00	0.00
ATOM	411	O	MET	47	-0.373	-25.101	5.058	1.00	0.00
ATOM	412	N	LEU	48	-0.310	-27.354	4.983	1.00	0.00
ATOM	413	CA	LEU	48	0.215	-27.486	3.632	1.00	0.00
ATOM	414	CB	LEU	48	0.332	-28.975	3.278	1.00	0.00
ATOM	415	CG	LEU	48	1.487	-29.698	3.989	1.00	0.00
ATOM	416	CD1	LEU	48	1.201	-31.198	4.107	1.00	0.00
ATOM	417	CD2	LEU	48	2.789	-29.542	3.197	1.00	0.00
ATOM	418	C	LEU	48	-0.721	-26.779	2.648	1.00	0.00
ATOM	419	O	LEU	48	-0.278	-25.940	1.862	1.00	0.00
ATOM	420	N	LYS	49	-2.016	-27.121	2.702	1.00	0.00
ATOM	421	CA	LYS	49	-3.042	-26.548	1.844	1.00	0.00
ATOM	422	CB	LYS	49	-4.423	-27.105	2.244	1.00	0.00
ATOM	423	CG	LYS	49	-5.657	-26.307	1.773	1.00	0.00
ATOM	424	CD	LYS	49	-6.140	-26.590	0.347	1.00	0.00
ATOM	425	CE	LYS	49	-5.199	-26.209	-0.795	1.00	0.00
ATOM	426	NZ	LYS	49	-5.781	-26.607	-2.089	1.00	0.00
ATOM	427	C	LYS	49	-3.035	-25.023	1.908	1.00	0.00
ATOM	428	O	LYS	49	-2.915	-24.365	0.877	1.00	0.00
ATOM	429	N	ASP	50	-3.199	-24.464	3.111	1.00	0.00
ATOM	430	CA	ASP	50	-3.263	-23.026	3.309	1.00	0.00
ATOM	431	CB	ASP	50	-3.573	-22.689	4.767	1.00	0.00
ATOM	432	CG	ASP	50	-3.804	-21.191	4.927	1.00	0.00
ATOM	433	OD1	ASP	50	-3.144	-20.600	5.807	1.00	0.00
ATOM	434	OD2	ASP	50	-4.658	-20.662	4.181	1.00	0.00
ATOM	435	C	ASP	50	-1.994	-22.331	2.823	1.00	0.00
ATOM	436	O	ASP	50	-2.077	-21.296	2.169	1.00	0.00
ATOM	437	N	ARG	51	-0.818	-22.894	3.119	1.00	0.00
ATOM	438	CA	ARG	51	0.425	-22.291	2.661	1.00	0.00
ATOM	439	CB	ARG	51	1.638	-23.064	3.190	1.00	0.00
ATOM	440	CG	ARG	51	2.891	-22.192	3.356	1.00	0.00
ATOM	441	CD	ARG	51	3.194	-21.219	2.220	1.00	0.00
ATOM	442	NE	ARG	51	4.555	-20.668	2.336	1.00	0.00
ATOM	443	CZ	ARG	51	4.888	-19.398	2.621	1.00	0.00
ATOM	444	NH1	ARG	51	3.976	-18.531	3.070	1.00	0.00
ATOM	445	NH2	ARG	51	6.150	-18.985	2.459	1.00	0.00
ATOM	446	C	ARG	51	0.413	-22.229	1.130	1.00	0.00
ATOM	447	O	ARG	51	0.636	-21.167	0.554	1.00	0.00
ATOM	448	N	TRP	52	0.136	-23.355	0.459	1.00	0.00
ATOM	449	CA	TRP	52	0.082	-23.411	-0.991	1.00	0.00
ATOM	450	CB	TRP	52	-0.278	-24.833	-1.404	1.00	0.00
ATOM	451	CG	TRP	52	-0.121	-25.126	-2.855	1.00	0.00
ATOM	452	CD1	TRP	52	-1.127	-25.405	-3.710	1.00	0.00
ATOM	453	NE1	TRP	52	-0.617	-25.647	-4.967	1.00	0.00
ATOM	454	CE2	TRP	52	0.759	-25.522	-4.978	1.00	0.00
ATOM	455	CZ2	TRP	52	1.724	-25.664	-5.984	1.00	0.00
ATOM	456	CH2	TRP	52	3.077	-25.479	-5.664	1.00	0.00
ATOM	457	CZ3	TRP	52	3.450	-25.145	-4.350	1.00	0.00
ATOM	458	CE3	TRP	52	2.473	-25.003	-3.349	1.00	0.00

495					496				
ATOM	459	CD2	TRP	52	1.104	-25.188	-3.637	1.00	0.00
ATOM	460	C	TRP	52	-0.926	-22.401	-1.544	1.00	0.00
ATOM	461	O	TRP	52	-0.655	-21.729	-2.538	1.00	0.00
ATOM	462	N	ARG	53	-2.082	-22.289	-0.885	1.00	0.00
ATOM	463	CA	ARG	53	-3.138	-21.357	-1.246	1.00	0.00
ATOM	464	CB	ARG	53	-4.318	-21.559	-0.287	1.00	0.00
ATOM	465	CG	ARG	53	-5.542	-20.710	-0.630	1.00	0.00
ATOM	466	CD	ARG	53	-6.750	-21.207	0.174	1.00	0.00
ATOM	467	NE	ARG	53	-6.557	-21.081	1.629	1.00	0.00
ATOM	468	CZ	ARG	53	-7.442	-21.515	2.543	1.00	0.00
ATOM	469	NH1	ARG	53	-8.504	-22.237	2.174	1.00	0.00
ATOM	470	NH2	ARG	53	-7.263	-21.227	3.835	1.00	0.00
ATOM	471	C	ARG	53	-2.575	-19.935	-1.224	1.00	0.00
ATOM	472	O	ARG	53	-2.762	-19.189	-2.182	1.00	0.00
ATOM	473	N	THR	54	-1.864	-19.568	-0.150	1.00	0.00
ATOM	474	CA	THR	54	-1.234	-18.263	0.005	1.00	0.00
ATOM	475	CB	THR	54	-0.631	-18.154	1.414	1.00	0.00
ATOM	476	CG2	THR	54	-0.003	-16.783	1.664	1.00	0.00
ATOM	477	OG1	THR	54	-1.662	-18.359	2.358	1.00	0.00
ATOM	478	C	THR	54	-0.199	-18.025	-1.104	1.00	0.00
ATOM	479	O	THR	54	-0.150	-16.941	-1.685	1.00	0.00
ATOM	480	N	MET	55	0.625	-19.031	-1.421	1.00	0.00
ATOM	481	CA	MET	55	1.628	-18.911	-2.475	1.00	0.00
ATOM	482	CB	MET	55	2.477	-20.187	-2.572	1.00	0.00
ATOM	483	CG	MET	55	3.378	-20.372	-1.346	1.00	0.00
ATOM	484	SD	MET	55	4.328	-21.918	-1.312	1.00	0.00
ATOM	485	CE	MET	55	5.574	-21.568	-2.576	1.00	0.00
ATOM	486	C	MET	55	0.944	-18.596	-3.811	1.00	0.00
ATOM	487	O	MET	55	1.320	-17.647	-4.498	1.00	0.00
ATOM	488	N	LYS	56	-0.071	-19.383	-4.180	1.00	0.00
ATOM	489	CA	LYS	56	-0.812	-19.175	-5.418	1.00	0.00
ATOM	490	CB	LYS	56	-1.784	-20.337	-5.651	1.00	0.00
ATOM	491	CG	LYS	56	-0.995	-21.620	-5.926	1.00	0.00
ATOM	492	CD	LYS	56	-1.869	-22.860	-6.130	1.00	0.00
ATOM	493	CE	LYS	56	-2.832	-22.765	-7.314	1.00	0.00
ATOM	494	NZ	LYS	56	-3.538	-24.045	-7.527	1.00	0.00
ATOM	495	C	LYS	56	-1.543	-17.830	-5.398	1.00	0.00
ATOM	496	O	LYS	56	-1.604	-17.162	-6.427	1.00	0.00
ATOM	497	N	LYS	57	-2.074	-17.410	-4.239	1.00	0.00
ATOM	498	CA	LYS	57	-2.730	-16.117	-4.076	1.00	0.00
ATOM	499	CB	LYS	57	-3.226	-15.965	-2.629	1.00	0.00
ATOM	500	CG	LYS	57	-3.684	-14.554	-2.232	1.00	0.00
ATOM	501	CD	LYS	57	-2.538	-13.665	-1.711	1.00	0.00
ATOM	502	CE	LYS	57	-3.063	-12.312	-1.214	1.00	0.00
ATOM	503	NZ	LYS	57	-1.959	-11.427	-0.797	1.00	0.00
ATOM	504	C	LYS	57	-1.736	-15.031	-4.487	1.00	0.00
ATOM	505	O	LYS	57	-2.104	-14.090	-5.187	1.00	0.00
ATOM	506	N	LEU	58	-0.468	-15.179	-4.080	1.00	0.00
ATOM	507	CA	LEU	58	0.611	-14.257	-4.421	1.00	0.00
ATOM	508	CB	LEU	58	1.671	-14.332	-3.307	1.00	0.00

(250)

特開2003-135087

497					498				
ATOM	509	CG	LEU	58	2.556	-13.079	-3.199	1.00	0.00
ATOM	510	CD1	LEU	58	1.819	-11.951	-2.463	1.00	0.00
ATOM	511	CD2	LEU	58	3.837	-13.432	-2.435	1.00	0.00
ATOM	512	C	LEU	58	1.186	-14.575	-5.819	1.00	0.00
ATOM	513	O	LEU	58	2.324	-14.221	-6.122	1.00	0.00
ATOM	514	N	LYS	59	0.398	-15.240	-6.676	1.00	0.00
ATOM	515	CA	LYS	59	0.711	-15.642	-8.041	1.00	0.00
ATOM	516	CB	LYS	59	0.585	-14.435	-8.985	1.00	0.00
ATOM	517	CG	LYS	59	0.294	-14.899	-10.422	1.00	0.00
ATOM	518	CD	LYS	59	0.634	-13.854	-11.493	1.00	0.00
ATOM	519	CE	LYS	59	2.121	-13.472	-11.544	1.00	0.00
ATOM	520	NZ	LYS	59	3.009	-14.650	-11.518	1.00	0.00
ATOM	521	C	LYS	59	2.060	-16.357	-8.170	1.00	0.00
ATOM	522	O	LYS	59	2.789	-16.119	-9.134	1.00	0.00
ATOM	523	N	LEU	60	2.402	-17.239	-7.220	1.00	0.00
ATOM	524	CA	LEU	60	3.667	-17.962	-7.280	1.00	0.00
ATOM	525	CB	LEU	60	4.214	-18.284	-5.886	1.00	0.00
ATOM	526	CG	LEU	60	4.527	-17.036	-5.039	1.00	0.00
ATOM	527	CD1	LEU	60	5.132	-17.471	-3.701	1.00	0.00
ATOM	528	CD2	LEU	60	5.505	-16.071	-5.722	1.00	0.00
ATOM	529	C	LEU	60	3.594	-19.200	-8.174	1.00	0.00
ATOM	530	O	LEU	60	4.605	-19.561	-8.781	1.00	0.00
ATOM	531	N	ILE	61	2.426	-19.853	-8.259	1.00	0.00
ATOM	532	CA	ILE	61	2.221	-21.039	-9.081	1.00	0.00
ATOM	533	CB	ILE	61	2.257	-22.338	-8.245	1.00	0.00
ATOM	534	CG2	ILE	61	2.506	-23.522	-9.188	1.00	0.00
ATOM	535	CG1	ILE	61	3.307	-22.342	-7.123	1.00	0.00
ATOM	536	CD1	ILE	61	2.688	-21.958	-5.775	1.00	0.00
ATOM	537	C	ILE	61	0.893	-20.889	-9.824	1.00	0.00
ATOM	538	O	ILE	61	-0.173	-21.058	-9.234	1.00	0.00
ATOM	539	N	SER	62	0.950	-20.574	-11.119	1.00	0.00
ATOM	540	CA	SER	62	-0.227	-20.399	-11.953	1.00	0.00
ATOM	541	CB	SER	62	-0.934	-19.081	-11.603	1.00	0.00
ATOM	542	OG	SER	62	-0.005	-18.028	-11.461	1.00	0.00
ATOM	543	C	SER	62	0.189	-20.468	-13.420	1.00	0.00
ATOM	544	O	SER	62	1.356	-20.247	-13.749	1.00	0.00
ATOM	545	N	SER	63	-0.770	-20.789	-14.293	1.00	0.00
ATOM	546	CA	SER	63	-0.556	-20.911	-15.727	1.00	0.00
ATOM	547	CB	SER	63	-1.697	-21.734	-16.337	1.00	0.00
ATOM	548	OG	SER	63	-1.783	-22.987	-15.687	1.00	0.00
ATOM	549	C	SER	63	-0.468	-19.521	-16.354	1.00	0.00
ATOM	550	O	SER	63	-1.382	-19.096	-17.057	1.00	0.00
ATOM	551	N	ASP	64	0.639	-18.816	-16.095	1.00	0.00
ATOM	552	CA	ASP	64	0.893	-17.468	-16.592	1.00	0.00
ATOM	553	CB	ASP	64	1.945	-16.787	-15.698	1.00	0.00
ATOM	554	CG	ASP	64	1.579	-16.728	-14.217	1.00	0.00
ATOM	555	OD1	ASP	64	0.383	-16.879	-13.884	1.00	0.00
ATOM	556	OD2	ASP	64	2.516	-16.518	-13.416	1.00	0.00
ATOM	557	C	ASP	64	1.339	-17.502	-18.061	1.00	0.00
ATOM	558	O	ASP	64	2.342	-16.891	-18.426	1.00	0.00

(251)

特開2003-135087

499

500

ATOM	559	N	SER	65	0.596	-18.220	-18.908	1.00	0.00
ATOM	560	CA	SER	65	0.853	-18.375	-20.331	1.00	0.00
ATOM	561	CB	SER	65	0.645	-19.849	-20.704	1.00	0.00
ATOM	562	OG	SER	65	-0.545	-20.351	-20.124	1.00	0.00
ATOM	563	C	SER	65	-0.059	-17.421	-21.104	1.00	0.00
ATOM	564	O	SER	65	-0.848	-17.846	-21.946	1.00	0.00
ATOM	565	N	GLU	66	0.066	-16.125	-20.801	1.00	0.00
ATOM	566	CA	GLU	66	-0.696	-15.042	-21.404	1.00	0.00
ATOM	567	CB	GLU	66	-1.459	-14.275	-20.311	1.00	0.00
ATOM	568	CG	GLU	66	-0.582	-13.847	-19.122	1.00	0.00
ATOM	569	CD	GLU	66	-1.363	-13.024	-18.101	1.00	0.00
ATOM	570	OE1	GLU	66	-2.545	-13.362	-17.874	1.00	0.00
ATOM	571	OE2	GLU	66	-0.760	-12.076	-17.555	1.00	0.00
ATOM	572	C	GLU	66	0.237	-14.140	-22.216	1.00	0.00
ATOM	573	O	GLU	66	1.415	-14.005	-21.885	1.00	0.00
ATOM	574	N	ASP	67	-0.302	-13.539	-23.281	1.00	0.00
ATOM	575	CA	ASP	67	0.396	-12.649	-24.197	1.00	0.00
ATOM	576	CB	ASP	67	1.250	-13.476	-25.170	1.00	0.00
ATOM	577	CG	ASP	67	2.025	-12.595	-26.145	1.00	0.00
ATOM	578	OD1	ASP	67	2.971	-11.922	-25.678	1.00	0.00
ATOM	579	OD2	ASP	67	1.689	-12.638	-27.349	1.00	0.00
ATOM	580	C	ASP	67	-0.664	-11.834	-24.941	1.00	0.00
ATOM	581	OT1	ASP	67	-0.578	-10.590	-24.842	1.00	0.00
ATOM	582	OT2	ASP	67	-1.725	-12.446	-25.204	1.00	0.00
ATOM	583	O5'	GUA	68	-8.483	-40.715	10.490	1.00	0.00
ATOM	584	C5'	GUA	68	-8.157	-41.425	9.315	1.00	0.00
ATOM	585	C4'	GUA	68	-8.258	-40.508	8.094	1.00	0.00
ATOM	586	O4'	GUA	68	-9.538	-39.912	8.011	1.00	0.00
ATOM	587	C1'	GUA	68	-9.444	-38.814	7.130	1.00	0.00
ATOM	588	N9	GUA	68	-10.576	-37.886	7.334	1.00	0.00
ATOM	589	C8	GUA	68	-11.038	-37.374	8.517	1.00	0.00
ATOM	590	N7	GUA	68	-12.116	-36.651	8.404	1.00	0.00
ATOM	591	C5	GUA	68	-12.377	-36.660	7.038	1.00	0.00
ATOM	592	C6	GUA	68	-13.432	-36.047	6.296	1.00	0.00
ATOM	593	O6	GUA	68	-14.411	-35.441	6.728	1.00	0.00
ATOM	594	N1	GUA	68	-13.275	-36.203	4.925	1.00	0.00
ATOM	595	C2	GUA	68	-12.257	-36.920	4.329	1.00	0.00
ATOM	596	N2	GUA	68	-12.231	-36.974	2.997	1.00	0.00
ATOM	597	N3	GUA	68	-11.299	-37.547	5.024	1.00	0.00
ATOM	598	C4	GUA	68	-11.410	-37.374	6.369	1.00	0.00
ATOM	599	C3'	GUA	68	-7.270	-39.332	8.117	1.00	0.00
ATOM	600	C2'	GUA	68	-8.129	-38.191	7.555	1.00	0.00
ATOM	601	O3'	GUA	68	-6.150	-39.673	7.308	1.00	0.00
ATOM	602	P	THY	69	-4.928	-38.655	6.988	1.00	0.00
ATOM	603	OP1	THY	69	-4.631	-37.868	8.205	1.00	0.00
ATOM	604	OP2	THY	69	-3.848	-39.413	6.321	1.00	0.00
ATOM	605	O5'	THY	69	-5.556	-37.655	5.892	1.00	0.00
ATOM	606	C5'	THY	69	-6.188	-38.161	4.731	1.00	0.00
ATOM	607	C4'	THY	69	-7.085	-37.109	4.070	1.00	0.00
ATOM	608	O4'	THY	69	-8.173	-36.621	4.815	1.00	0.00

501				502				
ATOM	609	C1' THY	69	-8.554	-35.376	4.274	1.00	0.00
ATOM	610	N1 THY	69	-9.461	-34.680	5.223	1.00	0.00
ATOM	611	C6 THY	69	-9.208	-34.736	6.572	1.00	0.00
ATOM	612	C5 THY	69	-10.036	-34.144	7.467	1.00	0.00
ATOM	613	C7 THY	69	-9.633	-34.236	8.927	1.00	0.00
ATOM	614	C4 THY	69	-11.239	-33.454	7.045	1.00	0.00
ATOM	615	O4 THY	69	-12.043	-32.895	7.784	1.00	0.00
ATOM	616	N3 THY	69	-11.442	-33.468	5.675	1.00	0.00
ATOM	617	C2 THY	69	-10.598	-34.036	4.731	1.00	0.00
ATOM	618	O2 THY	69	-10.867	-33.958	3.536	1.00	0.00
ATOM	619	C3' THY	69	-6.323	-35.862	3.610	1.00	0.00
ATOM	620	C2' THY	69	-7.185	-34.719	4.155	1.00	0.00
ATOM	621	O3' THY	69	-6.205	-35.871	2.201	1.00	0.00
ATOM	622	P THY	70	-5.287	-34.799	1.426	1.00	0.00
ATOM	623	OP1 THY	70	-4.816	-35.424	0.173	1.00	0.00
ATOM	624	OP2 THY	70	-4.296	-34.255	2.380	1.00	0.00
ATOM	625	O5' THY	70	-6.319	-33.624	1.050	1.00	0.00
ATOM	626	C5' THY	70	-7.353	-33.835	0.107	1.00	0.00
ATOM	627	C4' THY	70	-8.385	-32.707	0.191	1.00	0.00
ATOM	628	O4' THY	70	-8.886	-32.613	1.504	1.00	0.00
ATOM	629	C1' THY	70	-9.471	-31.341	1.650	1.00	0.00
ATOM	630	N1 THY	70	-9.667	-31.040	3.090	1.00	0.00
ATOM	631	C6 THY	70	-8.666	-31.305	3.993	1.00	0.00
ATOM	632	C5 THY	70	-8.848	-31.099	5.319	1.00	0.00
ATOM	633	C7 THY	70	-7.663	-31.431	6.202	1.00	0.00
ATOM	634	C4 THY	70	-10.099	-30.595	5.846	1.00	0.00
ATOM	635	O4 THY	70	-10.342	-30.364	7.028	1.00	0.00
ATOM	636	N3 THY	70	-11.069	-30.391	4.880	1.00	0.00
ATOM	637	C2 THY	70	-10.902	-30.548	3.513	1.00	0.00
ATOM	638	O2 THY	70	-11.802	-30.230	2.742	1.00	0.00
ATOM	639	C3' THY	70	-7.833	-31.308	-0.120	1.00	0.00
ATOM	640	C2' THY	70	-8.443	-30.428	0.984	1.00	0.00
ATOM	641	O3' THY	70	-8.220	-30.954	-1.438	1.00	0.00
ATOM	642	P ADE	71	-7.750	-29.589	-2.158	1.00	0.00
ATOM	643	OP1 ADE	71	-8.032	-29.690	-3.604	1.00	0.00
ATOM	644	OP2 ADE	71	-6.377	-29.241	-1.714	1.00	0.00
ATOM	645	O5' ADE	71	-8.740	-28.484	-1.541	1.00	0.00
ATOM	646	C5' ADE	71	-10.121	-28.458	-1.864	1.00	0.00
ATOM	647	C4' ADE	71	-10.864	-27.415	-1.016	1.00	0.00
ATOM	648	O4' ADE	71	-11.090	-27.887	0.313	1.00	0.00
ATOM	649	C1' ADE	71	-10.859	-26.812	1.202	1.00	0.00
ATOM	650	N9 ADE	71	-10.594	-27.194	2.607	1.00	0.00
ATOM	651	C8 ADE	71	-9.432	-27.701	3.129	1.00	0.00
ATOM	652	N7 ADE	71	-9.386	-27.756	4.428	1.00	0.00
ATOM	653	C5 ADE	71	-10.616	-27.236	4.800	1.00	0.00
ATOM	654	C6 ADE	71	-11.191	-26.984	6.055	1.00	0.00
ATOM	655	N6 ADE	71	-10.550	-27.277	7.186	1.00	0.00
ATOM	656	N1 ADE	71	-12.403	-26.402	6.111	1.00	0.00
ATOM	657	C2 ADE	71	-13.020	-26.100	4.970	1.00	0.00
ATOM	658	N3 ADE	71	-12.595	-26.303	3.724	1.00	0.00

503

504

ATOM	659	C4	ADE	71	-11.364	-26.884	3.705	1.00	0.00
ATOM	660	C3'	ADE	71	-10.056	-26.111	-0.872	1.00	0.00
ATOM	661	C2'	ADE	71	-9.583	-26.286	0.565	1.00	0.00
ATOM	662	O3'	ADE	71	-10.914	-25.001	-1.005	1.00	0.00
ATOM	663	P	GUA	72	-10.381	-23.486	-1.141	1.00	0.00
ATOM	664	OP1	GUA	72	-9.196	-23.296	-0.268	1.00	0.00
ATOM	665	OP2	GUA	72	-10.307	-23.134	-2.575	1.00	0.00
ATOM	666	O5'	GUA	72	-11.608	-22.707	-0.463	1.00	0.00
ATOM	667	C5'	GUA	72	-12.941	-22.854	-0.915	1.00	0.00
ATOM	668	C4'	GUA	72	-13.909	-22.347	0.160	1.00	0.00
ATOM	669	O4'	GUA	72	-13.753	-23.099	1.358	1.00	0.00
ATOM	670	C1'	GUA	72	-13.373	-22.270	2.445	1.00	0.00
ATOM	671	N9	GUA	72	-12.334	-22.940	3.261	1.00	0.00
ATOM	672	C8	GUA	72	-11.187	-23.533	2.808	1.00	0.00
ATOM	673	N7	GUA	72	-10.337	-23.861	3.739	1.00	0.00
ATOM	674	C5	GUA	72	-11.011	-23.545	4.912	1.00	0.00
ATOM	675	C6	GUA	72	-10.623	-23.755	6.267	1.00	0.00
ATOM	676	O6	GUA	72	-9.562	-24.212	6.680	1.00	0.00
ATOM	677	N1	GUA	72	-11.615	-23.391	7.169	1.00	0.00
ATOM	678	C2	GUA	72	-12.837	-22.857	6.811	1.00	0.00
ATOM	679	N2	GUA	72	-13.666	-22.503	7.795	1.00	0.00
ATOM	680	N3	GUA	72	-13.195	-22.636	5.537	1.00	0.00
ATOM	681	C4	GUA	72	-12.248	-23.008	4.634	1.00	0.00
ATOM	682	C3'	GUA	72	-13.643	-20.885	0.527	1.00	0.00
ATOM	683	C2'	GUA	72	-12.773	-21.042	1.772	1.00	0.00
ATOM	684	O3'	GUA	72	-14.883	-20.248	0.783	1.00	0.00
ATOM	685	P	GUA	73	-15.000	-18.658	1.031	1.00	0.00
ATOM	686	OP1	GUA	73	-16.396	-18.251	0.758	1.00	0.00
ATOM	687	OP2	GUA	73	-13.887	-17.985	0.325	1.00	0.00
ATOM	688	O5'	GUA	73	-14.739	-18.540	2.612	1.00	0.00
ATOM	689	C5'	GUA	73	-15.688	-19.025	3.540	1.00	0.00
ATOM	690	C4'	GUA	73	-15.127	-18.944	4.960	1.00	0.00
ATOM	691	O4'	GUA	73	-13.964	-19.744	5.087	1.00	0.00
ATOM	692	C1'	GUA	73	-13.111	-19.111	6.013	1.00	0.00
ATOM	693	N9	GUA	73	-11.738	-19.658	5.956	1.00	0.00
ATOM	694	C8	GUA	73	-10.919	-19.816	4.869	1.00	0.00
ATOM	695	N7	GUA	73	-9.770	-20.378	5.133	1.00	0.00
ATOM	696	C5	GUA	73	-9.822	-20.588	6.508	1.00	0.00
ATOM	697	C6	GUA	73	-8.860	-21.168	7.387	1.00	0.00
ATOM	698	O6	GUA	73	-7.738	-21.576	7.100	1.00	0.00
ATOM	699	N1	GUA	73	-9.321	-21.259	8.697	1.00	0.00
ATOM	700	C2	GUA	73	-10.557	-20.813	9.121	1.00	0.00
ATOM	701	N2	GUA	73	-10.856	-20.911	10.417	1.00	0.00
ATOM	702	N3	GUA	73	-11.449	-20.239	8.306	1.00	0.00
ATOM	703	C4	GUA	73	-11.025	-20.158	7.017	1.00	0.00
ATOM	704	C3'	GUA	73	-14.705	-17.523	5.376	1.00	0.00
ATOM	705	C2'	GUA	73	-13.187	-17.678	5.509	1.00	0.00
ATOM	706	O3'	GUA	73	-15.332	-17.234	6.613	1.00	0.00
ATOM	707	P	GUA	74	-15.289	-15.777	7.304	1.00	0.00
ATOM	708	OP1	GUA	74	-14.285	-14.939	6.612	1.00	0.00

505					506				
ATOM	709	OP2	GUA	74	-16.678	-15.290	7.457	1.00	0.00
ATOM	710	O5'	GUA	74	-14.714	-16.141	8.761	1.00	0.00
ATOM	711	C5'	GUA	74	-15.462	-16.930	9.667	1.00	0.00
ATOM	712	C4'	GUA	74	-14.690	-17.143	10.972	1.00	0.00
ATOM	713	O4'	GUA	74	-13.459	-17.795	10.699	1.00	0.00
ATOM	714	C1'	GUA	74	-12.369	-17.035	11.185	1.00	0.00
ATOM	715	N9	GUA	74	-11.231	-17.177	10.248	1.00	0.00
ATOM	716	C8	GUA	74	-11.200	-16.877	8.909	1.00	0.00
ATOM	717	N7	GUA	74	-10.088	-17.197	8.310	1.00	0.00
ATOM	718	C5	GUA	74	-9.324	-17.768	9.320	1.00	0.00
ATOM	719	C6	GUA	74	-8.037	-18.373	9.256	1.00	0.00
ATOM	720	O6	GUA	74	-7.325	-18.519	8.265	1.00	0.00
ATOM	721	N1	GUA	74	-7.610	-18.860	10.485	1.00	0.00
ATOM	722	C2	GUA	74	-8.357	-18.803	11.644	1.00	0.00
ATOM	723	N2	GUA	74	-7.819	-19.307	12.756	1.00	0.00
ATOM	724	N3	GUA	74	-9.578	-18.246	11.707	1.00	0.00
ATOM	725	C4	GUA	74	-10.009	-17.754	10.513	1.00	0.00
ATOM	726	C3'	GUA	74	-14.342	-15.827	11.679	1.00	0.00
ATOM	727	C2'	GUA	74	-12.901	-15.603	11.226	1.00	0.00
ATOM	728	O3'	GUA	74	-14.462	-16.016	13.077	1.00	0.00
ATOM	729	P	THY	75	-14.273	-14.814	14.138	1.00	0.00
ATOM	730	OP1	THY	75	-15.304	-14.956	15.190	1.00	0.00
ATOM	731	OP2	THY	75	-14.142	-13.537	13.402	1.00	0.00
ATOM	732	O5'	THY	75	-12.843	-15.169	14.782	1.00	0.00
ATOM	733	C5'	THY	75	-12.688	-16.305	15.609	1.00	0.00
ATOM	734	C4'	THY	75	-11.213	-16.494	15.963	1.00	0.00
ATOM	735	O4'	THY	75	-10.460	-16.614	14.770	1.00	0.00
ATOM	736	C1'	THY	75	-9.210	-15.988	14.938	1.00	0.00
ATOM	737	N1	THY	75	-8.650	-15.633	13.604	1.00	0.00
ATOM	738	C6	THY	75	-9.394	-14.888	12.716	1.00	0.00
ATOM	739	C5	THY	75	-8.928	-14.595	11.476	1.00	0.00
ATOM	740	C7	THY	75	-9.814	-13.729	10.601	1.00	0.00
ATOM	741	C4	THY	75	-7.646	-15.083	11.017	1.00	0.00
ATOM	742	O4	THY	75	-7.166	-14.908	9.901	1.00	0.00
ATOM	743	N3	THY	75	-6.952	-15.808	11.969	1.00	0.00
ATOM	744	C2	THY	75	-7.388	-16.109	13.249	1.00	0.00
ATOM	745	O2	THY	75	-6.670	-16.763	14.001	1.00	0.00
ATOM	746	C3'	THY	75	-10.620	-15.306	16.740	1.00	0.00
ATOM	747	C2'	THY	75	-9.582	-14.755	15.759	1.00	0.00
ATOM	748	O3'	THY	75	-10.082	-15.787	17.961	1.00	0.00
ATOM	749	P	THY	76	-9.345	-14.825	19.023	1.00	0.00
ATOM	750	OP1	THY	76	-9.427	-15.426	20.376	1.00	0.00
ATOM	751	OP2	THY	76	-9.797	-13.431	18.826	1.00	0.00
ATOM	752	O5'	THY	76	-7.820	-14.926	18.535	1.00	0.00
ATOM	753	C5'	THY	76	-7.116	-16.151	18.596	1.00	0.00
ATOM	754	C4'	THY	76	-5.769	-15.999	17.890	1.00	0.00
ATOM	755	O4'	THY	76	-5.958	-15.568	16.562	1.00	0.00
ATOM	756	C1'	THY	76	-4.744	-15.013	16.117	1.00	0.00
ATOM	757	N1	THY	76	-4.958	-14.223	14.874	1.00	0.00
ATOM	758	C6	THY	76	-6.056	-13.402	14.751	1.00	0.00

507

508

ATOM	759	C5	THY	76	-6.330	-12.770	13.583	1.00	0.00
ATOM	760	C7	THY	76	-7.570	-11.897	13.577	1.00	0.00
ATOM	761	C4	THY	76	-5.485	-12.929	12.414	1.00	0.00
ATOM	762	O4	THY	76	-5.676	-12.426	11.310	1.00	0.00
ATOM	763	N3	THY	76	-4.393	-13.753	12.623	1.00	0.00
ATOM	764	C2	THY	76	-4.075	-14.399	13.807	1.00	0.00
ATOM	765	O2	THY	76	-3.058	-15.086	13.882	1.00	0.00
ATOM	766	C3'	THY	76	-4.858	-14.939	18.524	1.00	0.00
ATOM	767	C2'	THY	76	-4.344	-14.151	17.310	1.00	0.00
ATOM	768	O3'	THY	76	-3.852	-15.600	19.274	1.00	0.00
ATOM	769	P	ADE	77	-2.727	-14.804	20.116	1.00	0.00
ATOM	770	OP1	ADE	77	-2.248	-15.686	21.205	1.00	0.00
ATOM	771	OP2	ADE	77	-3.251	-13.458	20.440	1.00	0.00
ATOM	772	O5'	ADE	77	-1.560	-14.642	19.027	1.00	0.00
ATOM	773	C5'	ADE	77	-0.909	-15.768	18.479	1.00	0.00
ATOM	774	C4'	ADE	77	0.099	-15.311	17.428	1.00	0.00
ATOM	775	O4'	ADE	77	-0.592	-14.753	16.329	1.00	0.00
ATOM	776	C1'	ADE	77	0.211	-13.758	15.738	1.00	0.00
ATOM	777	N9	ADE	77	-0.660	-12.884	14.919	1.00	0.00
ATOM	778	C8	ADE	77	-1.805	-12.238	15.317	1.00	0.00
ATOM	779	N7	ADE	77	-2.431	-11.609	14.365	1.00	0.00
ATOM	780	C5	ADE	77	-1.633	-11.840	13.253	1.00	0.00
ATOM	781	C6	ADE	77	-1.736	-11.423	11.915	1.00	0.00
ATOM	782	N6	ADE	77	-2.734	-10.635	11.514	1.00	0.00
ATOM	783	N1	ADE	77	-0.780	-11.792	11.040	1.00	0.00
ATOM	784	C2	ADE	77	0.222	-12.554	11.482	1.00	0.00
ATOM	785	N3	ADE	77	0.416	-13.039	12.708	1.00	0.00
ATOM	786	C4	ADE	77	-0.550	-12.619	13.571	1.00	0.00
ATOM	787	C3'	ADE	77	1.053	-14.214	17.931	1.00	0.00
ATOM	788	C2'	ADE	77	0.756	-13.052	16.975	1.00	0.00
ATOM	789	O3'	ADE	77	2.375	-14.714	17.865	1.00	0.00
ATOM	790	P	GUA	78	3.658	-13.823	18.256	1.00	0.00
ATOM	791	OP1	GUA	78	4.725	-14.731	18.730	1.00	0.00
ATOM	792	OP2	GUA	78	3.220	-12.709	19.122	1.00	0.00
ATOM	793	O5'	GUA	78	4.069	-13.230	16.815	1.00	0.00
ATOM	794	C5'	GUA	78	4.394	-14.087	15.736	1.00	0.00
ATOM	795	C4'	GUA	78	4.531	-13.288	14.439	1.00	0.00
ATOM	796	O4'	GUA	78	3.327	-12.608	14.139	1.00	0.00
ATOM	797	C1'	GUA	78	3.636	-11.400	13.478	1.00	0.00
ATOM	798	N9	GUA	78	2.467	-10.492	13.552	1.00	0.00
ATOM	799	C8	GUA	78	1.736	-10.146	14.661	1.00	0.00
ATOM	800	N7	GUA	78	0.662	-9.456	14.405	1.00	0.00
ATOM	801	C5	GUA	78	0.691	-9.297	13.024	1.00	0.00
ATOM	802	C6	GUA	78	-0.221	-8.621	12.159	1.00	0.00
ATOM	803	O6	GUA	78	-1.260	-8.035	12.455	1.00	0.00
ATOM	804	N1	GUA	78	0.170	-8.675	10.828	1.00	0.00
ATOM	805	C2	GUA	78	1.297	-9.323	10.371	1.00	0.00
ATOM	806	N2	GUA	78	1.528	-9.289	9.058	1.00	0.00
ATOM	807	N3	GUA	78	2.152	-9.971	11.178	1.00	0.00
ATOM	808	C4	GUA	78	1.801	-9.916	12.492	1.00	0.00

509				510				
ATOM	809	C3' GUA	78	5.624	-12.211	14.508	1.00	0.00
ATOM	810	C2' GUA	78	4.826	-10.917	14.301	1.00	0.00
ATOM	811	O3' GUA	78	6.569	-12.492	13.487	1.00	0.00
ATOM	812	P GUA	79	7.956	-11.684	13.332	1.00	0.00
ATOM	813	OP1 GUA	79	8.375	-11.203	14.666	1.00	0.00
ATOM	814	OP2 GUA	79	8.888	-12.532	12.550	1.00	0.00
ATOM	815	O5' GUA	79	7.523	-10.434	12.427	1.00	0.00
ATOM	816	C5' GUA	79	7.233	-10.610	11.053	1.00	0.00
ATOM	817	C4' GUA	79	6.627	-9.338	10.463	1.00	0.00
ATOM	818	O4' GUA	79	5.388	-9.030	11.067	1.00	0.00
ATOM	819	C1' GUA	79	5.153	-7.661	10.838	1.00	0.00
ATOM	820	N9 GUA	79	4.048	-7.178	11.694	1.00	0.00
ATOM	821	C8 GUA	79	3.893	-7.330	13.047	1.00	0.00
ATOM	822	N7 GUA	79	2.786	-6.831	13.518	1.00	0.00
ATOM	823	C5 GUA	79	2.149	-6.313	12.395	1.00	0.00
ATOM	824	C6 GUA	79	0.883	-5.666	12.269	1.00	0.00
ATOM	825	O6 GUA	79	0.081	-5.384	13.156	1.00	0.00
ATOM	826	N1 GUA	79	0.572	-5.352	10.950	1.00	0.00
ATOM	827	C2 GUA	79	1.398	-5.607	9.875	1.00	0.00
ATOM	828	N2 GUA	79	0.977	-5.217	8.672	1.00	0.00
ATOM	829	N3 GUA	79	2.595	-6.198	9.990	1.00	0.00
ATOM	830	C4 GUA	79	2.910	-6.532	11.271	1.00	0.00
ATOM	831	C3' GUA	79	7.496	-8.083	10.651	1.00	0.00
ATOM	832	C2' GUA	79	6.502	-7.070	11.237	1.00	0.00
ATOM	833	O3' GUA	79	8.026	-7.721	9.387	1.00	0.00
ATOM	834	P GUA	80	9.012	-6.461	9.180	1.00	0.00
ATOM	835	OP1 GUA	80	9.848	-6.717	7.986	1.00	0.00
ATOM	836	OP2 GUA	80	9.651	-6.131	10.473	1.00	0.00
ATOM	837	O5' GUA	80	7.968	-5.293	8.817	1.00	0.00
ATOM	838	C5' GUA	80	7.224	-5.337	7.616	1.00	0.00
ATOM	839	C4' GUA	80	6.164	-4.237	7.621	1.00	0.00
ATOM	840	O4' GUA	80	5.277	-4.416	8.709	1.00	0.00
ATOM	841	C1' GUA	80	4.825	-3.142	9.097	1.00	0.00
ATOM	842	N9 GUA	80	4.187	-3.184	10.430	1.00	0.00
ATOM	843	C8 GUA	80	4.711	-3.625	11.616	1.00	0.00
ATOM	844	N7 GUA	80	3.913	-3.484	12.637	1.00	0.00
ATOM	845	C5 GUA	80	2.762	-2.929	12.086	1.00	0.00
ATOM	846	C6 GUA	80	1.524	-2.571	12.700	1.00	0.00
ATOM	847	O6 GUA	80	1.218	-2.626	13.889	1.00	0.00
ATOM	848	N1 GUA	80	0.582	-2.136	11.775	1.00	0.00
ATOM	849	C2 GUA	80	0.810	-2.015	10.420	1.00	0.00
ATOM	850	N2 GUA	80	-0.200	-1.595	9.656	1.00	0.00
ATOM	851	N3 GUA	80	1.985	-2.309	9.846	1.00	0.00
ATOM	852	C4 GUA	80	2.912	-2.770	10.729	1.00	0.00
ATOM	853	C3' GUA	80	6.749	-2.823	7.791	1.00	0.00
ATOM	854	C2' GUA	80	6.135	-2.360	9.109	1.00	0.00
ATOM	855	O3' GUA	80	6.313	-1.977	6.747	1.00	0.00
ATOM	856	O5' CYT	81	-7.758	2.150	14.058	1.00	0.00
ATOM	857	C5' CYT	81	-7.366	2.797	12.866	1.00	0.00
ATOM	858	C4' CYT	81	-6.484	1.873	12.022	1.00	0.00

511				512				
ATOM	859	O4' CYT	81	-5.389	1.389	12.770	1.00	0.00
ATOM	860	C1' CYT	81	-4.860	0.304	12.041	1.00	0.00
ATOM	861	N1 CYT	81	-3.949	-0.521	12.874	1.00	0.00
ATOM	862	C6 CYT	81	-4.324	-0.902	14.138	1.00	0.00
ATOM	863	C5 CYT	81	-3.537	-1.693	14.903	1.00	0.00
ATOM	864	C4 CYT	81	-2.281	-2.100	14.341	1.00	0.00
ATOM	865	N4 CYT	81	-1.440	-2.866	15.039	1.00	0.00
ATOM	866	N3 CYT	81	-1.929	-1.738	13.101	1.00	0.00
ATOM	867	C2 CYT	81	-2.744	-0.965	12.332	1.00	0.00
ATOM	868	O2 CYT	81	-2.410	-0.682	11.184	1.00	0.00
ATOM	869	C3' CYT	81	-7.195	0.603	11.533	1.00	0.00
ATOM	870	C2' CYT	81	-6.116	-0.476	11.675	1.00	0.00
ATOM	871	O3' CYT	81	-7.637	0.799	10.201	1.00	0.00
ATOM	872	P CYT	82	-8.397	-0.349	9.356	1.00	0.00
ATOM	873	OP1 CYT	82	-8.914	-1.361	10.304	1.00	0.00
ATOM	874	OP2 CYT	82	-9.320	0.312	8.407	1.00	0.00
ATOM	875	O5' CYT	82	-7.196	-1.019	8.513	1.00	0.00
ATOM	876	C5' CYT	82	-6.530	-0.303	7.488	1.00	0.00
ATOM	877	C4' CYT	82	-5.411	-1.153	6.873	1.00	0.00
ATOM	878	O4' CYT	82	-4.487	-1.523	7.877	1.00	0.00
ATOM	879	C1' CYT	82	-4.035	-2.843	7.665	1.00	0.00
ATOM	880	N1 CYT	82	-3.688	-3.417	8.987	1.00	0.00
ATOM	881	C6 CYT	82	-4.603	-3.334	10.001	1.00	0.00
ATOM	882	C5 CYT	82	-4.336	-3.778	11.244	1.00	0.00
ATOM	883	C4 CYT	82	-3.039	-4.354	11.460	1.00	0.00
ATOM	884	N4 CYT	82	-2.726	-4.857	12.655	1.00	0.00
ATOM	885	N3 CYT	82	-2.140	-4.435	10.467	1.00	0.00
ATOM	886	C2 CYT	82	-2.434	-3.982	9.212	1.00	0.00
ATOM	887	O2 CYT	82	-1.608	-4.087	8.308	1.00	0.00
ATOM	888	C3' CYT	82	-5.921	-2.458	6.243	1.00	0.00
ATOM	889	C2' CYT	82	-5.259	-3.548	7.081	1.00	0.00
ATOM	890	O3' CYT	82	-5.542	-2.481	4.875	1.00	0.00
ATOM	891	P CYT	83	-6.027	-3.634	3.852	1.00	0.00
ATOM	892	OP1 CYT	83	-6.102	-3.048	2.494	1.00	0.00
ATOM	893	OP2 CYT	83	-7.208	-4.312	4.428	1.00	0.00
ATOM	894	O5' CYT	83	-4.792	-4.665	3.887	1.00	0.00
ATOM	895	C5' CYT	83	-3.599	-4.419	3.161	1.00	0.00
ATOM	896	C4' CYT	83	-2.542	-5.459	3.544	1.00	0.00
ATOM	897	O4' CYT	83	-2.353	-5.427	4.943	1.00	0.00
ATOM	898	C1' CYT	83	-1.791	-6.647	5.373	1.00	0.00
ATOM	899	N1 CYT	83	-2.248	-6.947	6.753	1.00	0.00
ATOM	900	C6 CYT	83	-3.562	-6.743	7.079	1.00	0.00
ATOM	901	C5 CYT	83	-4.015	-6.905	8.341	1.00	0.00
ATOM	902	C4 CYT	83	-3.058	-7.341	9.319	1.00	0.00
ATOM	903	N4 CYT	83	-3.436	-7.517	10.586	1.00	0.00
ATOM	904	N3 CYT	83	-1.790	-7.616	8.981	1.00	0.00
ATOM	905	C2 CYT	83	-1.352	-7.443	7.699	1.00	0.00
ATOM	906	O2 CYT	83	-0.200	-7.745	7.395	1.00	0.00
ATOM	907	C3' CYT	83	-2.975	-6.898	3.240	1.00	0.00
ATOM	908	C2' CYT	83	-2.361	-7.681	4.405	1.00	0.00

(258)

特開2003-135087

513

514

ATOM	909	O3'	CYT	83	-2.521	-7.322	1.961	1.00	0.00
ATOM	910	P	THY	84	-2.740	-8.834	1.423	1.00	0.00
ATOM	911	OP1	THY	84	-3.973	-9.391	2.017	1.00	0.00
ATOM	912	OP2	THY	84	-2.559	-8.878	-0.047	1.00	0.00
ATOM	913	O5'	THY	84	-1.500	-9.638	2.049	1.00	0.00
ATOM	914	C5'	THY	84	-0.166	-9.224	1.830	1.00	0.00
ATOM	915	C4'	THY	84	0.769	-10.085	2.682	1.00	0.00
ATOM	916	O4'	THY	84	0.396	-9.971	4.047	1.00	0.00
ATOM	917	C1'	THY	84	0.300	-11.244	4.650	1.00	0.00
ATOM	918	N1	THY	84	-0.702	-11.187	5.758	1.00	0.00
ATOM	919	C6	THY	84	-2.013	-10.866	5.484	1.00	0.00
ATOM	920	C5	THY	84	-2.927	-10.723	6.473	1.00	0.00
ATOM	921	C7	THY	84	-4.358	-10.417	6.063	1.00	0.00
ATOM	922	C4	THY	84	-2.563	-10.869	7.863	1.00	0.00
ATOM	923	O4	THY	84	-3.329	-10.701	8.804	1.00	0.00
ATOM	924	N3	THY	84	-1.239	-11.222	8.075	1.00	0.00
ATOM	925	C2	THY	84	-0.282	-11.392	7.078	1.00	0.00
ATOM	926	O2	THY	84	0.865	-11.714	7.377	1.00	0.00
ATOM	927	C3'	THY	84	0.661	-11.567	2.311	1.00	0.00
ATOM	928	C2'	THY	84	-0.129	-12.146	3.488	1.00	0.00
ATOM	929	O3'	THY	84	1.962	-12.103	2.153	1.00	0.00
ATOM	930	P	ADE	85	2.206	-13.608	1.628	1.00	0.00
ATOM	931	OP1	ADE	85	3.592	-13.714	1.124	1.00	0.00
ATOM	932	OP2	ADE	85	1.068	-13.989	0.760	1.00	0.00
ATOM	933	O5'	ADE	85	2.116	-14.429	3.005	1.00	0.00
ATOM	934	C5'	ADE	85	3.059	-14.199	4.034	1.00	0.00
ATOM	935	C4'	ADE	85	2.570	-14.795	5.353	1.00	0.00
ATOM	936	O4'	ADE	85	1.335	-14.243	5.763	1.00	0.00
ATOM	937	C1'	ADE	85	0.758	-15.150	6.675	1.00	0.00
ATOM	938	N9	ADE	85	-0.669	-14.826	6.898	1.00	0.00
ATOM	939	C8	ADE	85	-1.624	-14.519	5.962	1.00	0.00
ATOM	940	N7	ADE	85	-2.769	-14.145	6.462	1.00	0.00
ATOM	941	C5	ADE	85	-2.572	-14.250	7.835	1.00	0.00
ATOM	942	C6	ADE	85	-3.398	-13.991	8.948	1.00	0.00
ATOM	943	N6	ADE	85	-4.641	-13.516	8.835	1.00	0.00
ATOM	944	N1	ADE	85	-2.915	-14.240	10.179	1.00	0.00
ATOM	945	C2	ADE	85	-1.677	-14.710	10.294	1.00	0.00
ATOM	946	N3	ADE	85	-0.788	-14.958	9.341	1.00	0.00
ATOM	947	C4	ADE	85	-1.306	-14.704	8.111	1.00	0.00
ATOM	948	C3'	ADE	85	2.334	-16.309	5.286	1.00	0.00
ATOM	949	C2'	ADE	85	0.936	-16.453	5.909	1.00	0.00
ATOM	950	O3'	ADE	85	3.393	-16.923	6.000	1.00	0.00
ATOM	951	P	ADE	86	3.462	-18.502	6.299	1.00	0.00
ATOM	952	OP1	ADE	86	4.887	-18.869	6.482	1.00	0.00
ATOM	953	OP2	ADE	86	2.645	-19.205	5.282	1.00	0.00
ATOM	954	O5'	ADE	86	2.727	-18.585	7.728	1.00	0.00
ATOM	955	C5'	ADE	86	3.206	-17.817	8.814	1.00	0.00
ATOM	956	C4'	ADE	86	2.537	-18.198	10.133	1.00	0.00
ATOM	957	O4'	ADE	86	1.213	-17.701	10.160	1.00	0.00
ATOM	958	C1'	ADE	86	0.306	-18.732	10.487	1.00	0.00

515				516					
ATOM	959	N9	ADE	86	-0.976	-18.429	9.816	1.00	0.00
ATOM	960	C8	ADE	86	-1.232	-18.329	8.470	1.00	0.00
ATOM	961	N7	ADE	86	-2.402	-17.837	8.177	1.00	0.00
ATOM	962	C5	ADE	86	-2.979	-17.623	9.420	1.00	0.00
ATOM	963	C6	ADE	86	-4.231	-17.117	9.814	1.00	0.00
ATOM	964	N6	ADE	86	-5.138	-16.697	8.933	1.00	0.00
ATOM	965	N1	ADE	86	-4.510	-17.044	11.127	1.00	0.00
ATOM	966	C2	ADE	86	-3.599	-17.454	12.004	1.00	0.00
ATOM	967	N3	ADE	86	-2.378	-17.923	11.766	1.00	0.00
ATOM	968	C4	ADE	86	-2.127	-17.992	10.429	1.00	0.00
ATOM	969	C3'	ADE	86	2.444	-19.715	10.347	1.00	0.00
ATOM	970	C2'	ADE	86	0.991	-19.991	9.961	1.00	0.00
ATOM	971	O3'	ADE	86	2.715	-19.982	11.709	1.00	0.00
ATOM	972	P	CYT	87	2.939	-21.472	12.276	1.00	0.00
ATOM	973	OP1	CYT	87	3.349	-22.344	11.152	1.00	0.00
ATOM	974	OP2	CYT	87	3.808	-21.373	13.473	1.00	0.00
ATOM	975	O5'	CYT	87	1.444	-21.878	12.731	1.00	0.00
ATOM	976	C5'	CYT	87	0.865	-21.307	13.890	1.00	0.00
ATOM	977	C4'	CYT	87	-0.662	-21.442	13.922	1.00	0.00
ATOM	978	O4'	CYT	87	-1.272	-20.862	12.789	1.00	0.00
ATOM	979	C1'	CYT	87	-2.602	-21.333	12.763	1.00	0.00
ATOM	980	N1	CYT	87	-3.242	-21.074	11.447	1.00	0.00
ATOM	981	C6	CYT	87	-2.560	-21.347	10.289	1.00	0.00
ATOM	982	C5	CYT	87	-3.084	-21.062	9.076	1.00	0.00
ATOM	983	C4	CYT	87	-4.380	-20.451	9.052	1.00	0.00
ATOM	984	N4	CYT	87	-4.908	-20.067	7.892	1.00	0.00
ATOM	985	N3	CYT	87	-5.055	-20.210	10.185	1.00	0.00
ATOM	986	C2	CYT	87	-4.524	-20.526	11.400	1.00	0.00
ATOM	987	O2	CYT	87	-5.176	-20.314	12.420	1.00	0.00
ATOM	988	C3'	CYT	87	-1.214	-22.875	13.981	1.00	0.00
ATOM	989	C2'	CYT	87	-2.394	-22.823	13.004	1.00	0.00
ATOM	990	O3'	CYT	87	-1.595	-23.153	15.320	1.00	0.00
ATOM	991	P	CYT	88	-2.284	-24.545	15.770	1.00	0.00
ATOM	992	OP1	CYT	88	-1.918	-25.588	14.784	1.00	0.00
ATOM	993	OP2	CYT	88	-1.997	-24.754	17.206	1.00	0.00
ATOM	994	O5'	CYT	88	-3.858	-24.228	15.609	1.00	0.00
ATOM	995	C5'	CYT	88	-4.510	-23.273	16.430	1.00	0.00
ATOM	996	C4'	CYT	88	-5.913	-22.972	15.890	1.00	0.00
ATOM	997	O4'	CYT	88	-5.821	-22.602	14.529	1.00	0.00
ATOM	998	C1'	CYT	88	-7.023	-22.939	13.873	1.00	0.00
ATOM	999	N1	CYT	88	-6.753	-23.124	12.428	1.00	0.00
ATOM	1000	C6	CYT	88	-5.642	-23.820	12.034	1.00	0.00
ATOM	1001	C5	CYT	88	-5.267	-23.893	10.741	1.00	0.00
ATOM	1002	C4	CYT	88	-6.111	-23.224	9.789	1.00	0.00
ATOM	1003	N4	CYT	88	-5.770	-23.179	8.501	1.00	0.00
ATOM	1004	N3	CYT	88	-7.245	-22.621	10.169	1.00	0.00
ATOM	1005	C2	CYT	88	-7.606	-22.565	11.482	1.00	0.00
ATOM	1006	O2	CYT	88	-8.668	-22.042	11.807	1.00	0.00
ATOM	1007	C3'	CYT	88	-6.871	-24.172	15.935	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.396	-24.273	14.504	1.00	0.00

(260)

特開2003-135087

517				518			
ATOM	1009	O3' CYT	88	-7.900	-23.919	16.882	1.00 0.00
ATOM	1010	P CYT	89	-9.101	-24.964	17.175	1.00 0.00
ATOM	1011	OP1 CYT	89	-9.551	-24.767	18.571	1.00 0.00
ATOM	1012	OP2 CYT	89	-8.674	-26.307	16.723	1.00 0.00
ATOM	1013	O5' CYT	89	-10.283	-24.464	16.192	1.00 0.00
ATOM	1014	C5' CYT	89	-10.973	-23.245	16.418	1.00 0.00
ATOM	1015	C4' CYT	89	-12.052	-23.023	15.348	1.00 0.00
ATOM	1016	O4' CYT	89	-11.457	-22.987	14.065	1.00 0.00
ATOM	1017	C1' CYT	89	-12.301	-23.602	13.112	1.00 0.00
ATOM	1018	N1 CYT	89	-11.447	-24.184	12.046	1.00 0.00
ATOM	1019	C6 CYT	89	-10.354	-24.925	12.410	1.00 0.00
ATOM	1020	C5 CYT	89	-9.474	-25.392	11.504	1.00 0.00
ATOM	1021	C4 CYT	89	-9.744	-25.084	10.130	1.00 0.00
ATOM	1022	N4 CYT	89	-8.916	-25.514	9.181	1.00 0.00
ATOM	1023	N3 CYT	89	-10.837	-24.398	9.768	1.00 0.00
ATOM	1024	C2 CYT	89	-11.722	-23.941	10.702	1.00 0.00
ATOM	1025	O2 CYT	89	-12.733	-23.341	10.346	1.00 0.00
ATOM	1026	C3' CYT	89	-13.104	-24.143	15.314	1.00 0.00
ATOM	1027	C2' CYT	89	-12.972	-24.714	13.907	1.00 0.00
ATOM	1028	O3' CYT	89	-14.390	-23.595	15.575	1.00 0.00
ATOM	1029	P THY	90	-15.741	-24.488	15.604	1.00 0.00
ATOM	1030	OP1 THY	90	-15.367	-25.902	15.824	1.00 0.00
ATOM	1031	OP2 THY	90	-16.709	-23.832	16.511	1.00 0.00
ATOM	1032	O5' THY	90	-16.299	-24.352	14.096	1.00 0.00
ATOM	1033	C5' THY	90	-16.736	-23.106	13.584	1.00 0.00
ATOM	1034	C4' THY	90	-17.058	-23.226	12.090	1.00 0.00
ATOM	1035	O4' THY	90	-15.927	-23.744	11.416	1.00 0.00
ATOM	1036	C1' THY	90	-16.333	-24.656	10.419	1.00 0.00
ATOM	1037	N1 THY	90	-15.212	-25.603	10.178	1.00 0.00
ATOM	1038	C6 THY	90	-14.698	-26.326	11.227	1.00 0.00
ATOM	1039	C5 THY	90	-13.585	-27.083	11.086	1.00 0.00
ATOM	1040	C7 THY	90	-13.127	-27.861	12.306	1.00 0.00
ATOM	1041	C4 THY	90	-12.873	-27.146	9.829	1.00 0.00
ATOM	1042	O4 THY	90	-11.832	-27.764	9.638	1.00 0.00
ATOM	1043	N3 THY	90	-13.465	-26.417	8.809	1.00 0.00
ATOM	1044	C2 THY	90	-14.628	-25.668	8.912	1.00 0.00
ATOM	1045	O2 THY	90	-15.104	-25.122	7.920	1.00 0.00
ATOM	1046	C3' THY	90	-18.226	-24.179	11.785	1.00 0.00
ATOM	1047	C2' THY	90	-17.548	-25.336	11.052	1.00 0.00
ATOM	1048	O3' THY	90	-19.181	-23.500	10.985	1.00 0.00
ATOM	1049	P ADE	91	-20.607	-24.153	10.589	1.00 0.00
ATOM	1050	OP1 ADE	91	-20.974	-25.147	11.621	1.00 0.00
ATOM	1051	OP2 ADE	91	-21.541	-23.053	10.264	1.00 0.00
ATOM	1052	O5' ADE	91	-20.268	-24.945	9.230	1.00 0.00
ATOM	1053	C5' ADE	91	-20.064	-24.255	8.012	1.00 0.00
ATOM	1054	C4' ADE	91	-19.516	-25.205	6.944	1.00 0.00
ATOM	1055	O4' ADE	91	-18.275	-25.750	7.339	1.00 0.00
ATOM	1056	C1' ADE	91	-18.046	-26.878	6.528	1.00 0.00
ATOM	1057	N9 ADE	91	-16.995	-27.718	7.131	1.00 0.00
ATOM	1058	C8 ADE	91	-16.881	-28.107	8.439	1.00 0.00

519

520

ATOM	1059	N7	ADE	91	-15.782	-28.757	8.711	1.00	0.00
ATOM	1060	C5	ADE	91	-15.140	-28.832	7.478	1.00	0.00
ATOM	1061	C6	ADE	91	-13.914	-29.386	7.061	1.00	0.00
ATOM	1062	N6	ADE	91	-13.059	-29.964	7.908	1.00	0.00
ATOM	1063	N1	ADE	91	-13.603	-29.351	5.753	1.00	0.00
ATOM	1064	C2	ADE	91	-14.450	-28.778	4.901	1.00	0.00
ATOM	1065	N3	ADE	91	-15.603	-28.177	5.171	1.00	0.00
ATOM	1066	C4	ADE	91	-15.896	-28.240	6.497	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.404	-26.426	6.657	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.395	-27.579	6.575	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.120	-26.185	5.455	1.00	0.00
ATOM	1070	P	ADE	92	-22.059	-27.291	4.742	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.494	-28.273	5.759	1.00	0.00
ATOM	1072	OP2	ADE	92	-23.065	-26.582	3.920	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.025	-28.024	3.743	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.374	-27.307	2.711	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.337	-28.188	2.009	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.381	-28.656	2.947	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.065	-30.002	2.663	1.00	0.00
ATOM	1078	N9	ADE	92	-17.526	-30.656	3.877	1.00	0.00
ATOM	1079	C8	ADE	92	-18.102	-30.734	5.121	1.00	0.00
ATOM	1080	N7	ADE	92	-17.353	-31.286	6.032	1.00	0.00
ATOM	1081	C5	ADE	92	-16.194	-31.609	5.340	1.00	0.00
ATOM	1082	C6	ADE	92	-14.988	-32.216	5.737	1.00	0.00
ATOM	1083	N6	ADE	92	-14.767	-32.574	7.002	1.00	0.00
ATOM	1084	N1	ADE	92	-14.025	-32.412	4.816	1.00	0.00
ATOM	1085	C2	ADE	92	-14.254	-32.021	3.565	1.00	0.00
ATOM	1086	N3	ADE	92	-15.340	-31.437	3.065	1.00	0.00
ATOM	1087	C4	ADE	92	-16.291	-31.249	4.020	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.949	-29.439	1.357	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.436	-30.550	2.274	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.462	-29.535	0.028	1.00	0.00
ATOM	1091	P	CYT	93	-19.974	-30.663	-1.007	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.127	-31.376	-0.413	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.098	-30.046	-2.346	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.724	-31.674	-1.032	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.520	-31.332	-1.692	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.477	-32.424	-1.448	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.297	-32.581	-0.059	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.894	-33.902	0.214	1.00	0.00
ATOM	1099	N1	CYT	93	-16.256	-34.226	1.616	1.00	0.00
ATOM	1100	C6	CYT	93	-17.485	-33.864	2.109	1.00	0.00
ATOM	1101	C5	CYT	93	-17.825	-34.077	3.398	1.00	0.00
ATOM	1102	C4	CYT	93	-16.834	-34.694	4.235	1.00	0.00
ATOM	1103	N4	CYT	93	-17.043	-34.842	5.543	1.00	0.00
ATOM	1104	N3	CYT	93	-15.648	-35.074	3.741	1.00	0.00
ATOM	1105	C2	CYT	93	-15.328	-34.865	2.434	1.00	0.00
ATOM	1106	O2	CYT	93	-14.237	-35.234	2.005	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.920	-33.805	-1.956	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.713	-34.741	-0.767	1.00	0.00

(262)

特開2003-135087

```

521
ATOM 1109 O3' CYT 93 -16.127 -34.218 -3.049 1.00 0.00
END
HEADER 000000

REMARK      0.00533  1.67511  0.02550  0.01749  2.19618  1.90944
0.00000
REMARK      2.85314  0.22469  0.43219  1.45679  0.73946

REMARK      0.01164  0.00357  0.00526  0.02310  0.00848

REMARK      123      118      4      1      0      0
0
REMARK      1378      305      460      273      340

REMARK      0.03896  0.20843  0.03866  0.03996  0.20843  0.12770

REMARK      0.00000  0.00000

REMARK      0      0      0      0      0      0
0
ATOM 1 N GLU 1 6.989 -29.745 23.137 1.00 0.00
ATOM 2 CA GLU 1 8.030 -30.553 23.799 1.00 0.00
ATOM 3 CB GLU 1 9.312 -29.736 24.060 1.00 0.00
ATOM 4 CG GLU 1 9.919 -29.100 22.801 1.00 0.00
ATOM 5 CD GLU 1 9.160 -27.856 22.359 1.00 0.00
ATOM 6 OE1 GLU 1 8.254 -28.031 21.515 1.00 0.00
ATOM 7 OE2 GLU 1 9.441 -26.779 22.924 1.00 0.00
ATOM 8 C GLU 1 7.402 -31.095 25.081 1.00 0.00
ATOM 9 O GLU 1 6.262 -31.552 25.030 1.00 0.00
ATOM 10 N LYS 2 8.094 -31.007 26.225 1.00 0.00
ATOM 11 CA LYS 2 7.515 -31.401 27.504 1.00 0.00
ATOM 12 CB LYS 2 8.572 -31.328 28.615 1.00 0.00
ATOM 13 CG LYS 2 9.680 -32.366 28.385 1.00 0.00
ATOM 14 CD LYS 2 10.665 -32.454 29.558 1.00 0.00
ATOM 15 CE LYS 2 11.460 -31.156 29.755 1.00 0.00
ATOM 16 NZ LYS 2 12.504 -31.304 30.788 1.00 0.00
ATOM 17 C LYS 2 6.351 -30.434 27.751 1.00 0.00
ATOM 18 O LYS 2 5.262 -30.842 28.147 1.00 0.00
ATOM 19 N HIS 3 6.594 -29.149 27.459 1.00 0.00
ATOM 20 CA HIS 3 5.616 -28.080 27.529 1.00 0.00
ATOM 21 CB HIS 3 6.319 -26.764 27.881 1.00 0.00
ATOM 22 CG HIS 3 5.375 -25.591 27.935 1.00 0.00
ATOM 23 ND1 HIS 3 4.608 -25.301 29.054 1.00 0.00
ATOM 24 CE1 HIS 3 3.883 -24.206 28.766 1.00 0.00
ATOM 25 NE2 HIS 3 4.110 -23.745 27.535 1.00 0.00
ATOM 26 CD2 HIS 3 5.055 -24.623 27.013 1.00 0.00
ATOM 27 C HIS 3 4.937 -27.985 26.158 1.00 0.00
ATOM 28 O HIS 3 5.553 -28.282 25.129 1.00 0.00
ATOM 29 N ARG 4 3.667 -27.564 26.147 1.00 0.00
ATOM 30 CA ARG 4 2.876 -27.411 24.935 1.00 0.00

```

523

524

ATOM	31	CB	ARG	4	1.384	-27.506	25.289	1.00	0.00
ATOM	32	CG	ARG	4	0.509	-27.663	24.036	1.00	0.00
ATOM	33	CD	ARG	4	-0.980	-27.641	24.394	1.00	0.00
ATOM	34	NE	ARG	4	-1.346	-28.767	25.267	1.00	0.00
ATOM	35	CZ	ARG	4	-2.516	-28.889	25.916	1.00	0.00
ATOM	36	NH1	ARG	4	-3.468	-27.957	25.781	1.00	0.00
ATOM	37	NH2	ARG	4	-2.730	-29.951	26.704	1.00	0.00
ATOM	38	C	ARG	4	3.243	-26.092	24.249	1.00	0.00
ATOM	39	O	ARG	4	2.448	-25.153	24.221	1.00	0.00
ATOM	40	N	ALA	5	4.457	-26.028	23.690	1.00	0.00
ATOM	41	CA	ALA	5	4.973	-24.857	22.993	1.00	0.00
ATOM	42	CB	ALA	5	6.502	-24.946	22.933	1.00	0.00
ATOM	43	C	ALA	5	4.349	-24.753	21.598	1.00	0.00
ATOM	44	O	ALA	5	5.040	-24.887	20.589	1.00	0.00
ATOM	45	N	ARG	6	3.033	-24.512	21.538	1.00	0.00
ATOM	46	CA	ARG	6	2.286	-24.388	20.293	1.00	0.00
ATOM	47	CB	ARG	6	0.795	-24.668	20.555	1.00	0.00
ATOM	48	CG	ARG	6	-0.032	-24.833	19.269	1.00	0.00
ATOM	49	CD	ARG	6	0.193	-26.200	18.613	1.00	0.00
ATOM	50	NE	ARG	6	-0.608	-26.341	17.389	1.00	0.00
ATOM	51	CZ	ARG	6	-0.682	-27.472	16.667	1.00	0.00
ATOM	52	NH1	ARG	6	-0.022	-28.568	17.068	1.00	0.00
ATOM	53	NH2	ARG	6	-1.408	-27.520	15.545	1.00	0.00
ATOM	54	C	ARG	6	2.526	-23.003	19.685	1.00	0.00
ATOM	55	O	ARG	6	1.614	-22.181	19.622	1.00	0.00
ATOM	56	N	LYS	7	3.761	-22.748	19.235	1.00	0.00
ATOM	57	CA	LYS	7	4.150	-21.489	18.621	1.00	0.00
ATOM	58	CB	LYS	7	5.454	-20.961	19.242	1.00	0.00
ATOM	59	CG	LYS	7	5.757	-19.552	18.710	1.00	0.00
ATOM	60	CD	LYS	7	7.033	-18.949	19.300	1.00	0.00
ATOM	61	CE	LYS	7	7.185	-17.522	18.755	1.00	0.00
ATOM	62	NZ	LYS	7	8.425	-16.870	19.209	1.00	0.00
ATOM	63	C	LYS	7	4.285	-21.670	17.107	1.00	0.00
ATOM	64	O	LYS	7	4.764	-22.699	16.633	1.00	0.00
ATOM	65	N	ARG	8	3.868	-20.641	16.364	1.00	0.00
ATOM	66	CA	ARG	8	3.936	-20.568	14.913	1.00	0.00
ATOM	67	CB	ARG	8	3.287	-19.242	14.491	1.00	0.00
ATOM	68	CG	ARG	8	3.659	-18.713	13.101	1.00	0.00
ATOM	69	CD	ARG	8	2.924	-17.403	12.771	1.00	0.00
ATOM	70	NE	ARG	8	1.507	-17.599	12.414	1.00	0.00
ATOM	71	CZ	ARG	8	0.460	-17.608	13.253	1.00	0.00
ATOM	72	NH1	ARG	8	-0.791	-17.699	12.794	1.00	0.00
ATOM	73	NH2	ARG	8	0.649	-17.519	14.567	1.00	0.00
ATOM	74	C	ARG	8	5.391	-20.678	14.463	1.00	0.00
ATOM	75	O	ARG	8	6.275	-20.091	15.088	1.00	0.00
ATOM	76	N	GLN	9	5.636	-21.428	13.383	1.00	0.00
ATOM	77	CA	GLN	9	6.968	-21.624	12.835	1.00	0.00
ATOM	78	CB	GLN	9	7.306	-23.118	12.770	1.00	0.00
ATOM	79	CG	GLN	9	7.506	-23.724	14.164	1.00	0.00
ATOM	80	CD	GLN	9	8.027	-25.156	14.066	1.00	0.00

525				526			
ATOM	81	OE1 GLN	9	7.314 -26.105	14.374	1.00	0.00
ATOM	82	NE2 GLN	9	9.277 -25.314	13.624	1.00	0.00
ATOM	83	C GLN	9	7.025 -20.999	11.446	1.00	0.00
ATOM	84	O GLN	9	6.374 -21.485	10.523	1.00	0.00
ATOM	85	N ALA	10	7.818 -19.932	11.295	1.00	0.00
ATOM	86	CA ALA	10	7.995 -19.261	10.017	1.00	0.00
ATOM	87	CB ALA	10	8.861 -18.012	10.197	1.00	0.00
ATOM	88	C ALA	10	8.639 -20.247	9.041	1.00	0.00
ATOM	89	O ALA	10	9.611 -20.917	9.386	1.00	0.00
ATOM	90	N TRP	11	8.081 -20.345	7.833	1.00	0.00
ATOM	91	CA TRP	11	8.551 -21.252	6.802	1.00	0.00
ATOM	92	CB TRP	11	7.423 -21.470	5.788	1.00	0.00
ATOM	93	CG TRP	11	6.218 -22.231	6.278	1.00	0.00
ATOM	94	CD1 TRP	11	5.435 -21.913	7.334	1.00	0.00
ATOM	95	NE1 TRP	11	4.425 -22.843	7.478	1.00	0.00
ATOM	96	CE2 TRP	11	4.503 -23.817	6.508	1.00	0.00
ATOM	97	CZ2 TRP	11	3.725 -24.949	6.223	1.00	0.00
ATOM	98	CH2 TRP	11	4.074 -25.759	5.135	1.00	0.00
ATOM	99	CZ3 TRP	11	5.186 -25.428	4.347	1.00	0.00
ATOM	100	CE3 TRP	11	5.955 -24.286	4.635	1.00	0.00
ATOM	101	CD2 TRP	11	5.639 -23.451	5.725	1.00	0.00
ATOM	102	C TRP	11	9.840 -20.722	6.157	1.00	0.00
ATOM	103	O TRP	11	10.185 -19.550	6.310	1.00	0.00
ATOM	104	N LEU	12	10.557 -21.599	5.448	1.00	0.00
ATOM	105	CA LEU	12	11.820 -21.320	4.770	1.00	0.00
ATOM	106	CB LEU	12	12.952 -21.472	5.804	1.00	0.00
ATOM	107	CG LEU	12	14.372 -21.131	5.321	1.00	0.00
ATOM	108	CD1 LEU	12	14.482 -19.683	4.828	1.00	0.00
ATOM	109	CD2 LEU	12	15.359 -21.343	6.475	1.00	0.00
ATOM	110	C LEU	12	11.939 -22.312	3.607	1.00	0.00
ATOM	111	O LEU	12	11.142 -23.249	3.549	1.00	0.00
ATOM	112	N TRP	13	12.906 -22.129	2.689	1.00	0.00
ATOM	113	CA TRP	13	13.107 -23.005	1.529	1.00	0.00
ATOM	114	CB TRP	13	14.453 -22.859	0.817	1.00	0.00
ATOM	115	CG TRP	13	15.545 -22.283	1.632	1.00	0.00
ATOM	116	CD1 TRP	13	15.836 -20.985	1.567	1.00	0.00
ATOM	117	NE1 TRP	13	16.879 -20.684	2.416	1.00	0.00
ATOM	118	CE2 TRP	13	17.307 -21.821	3.081	1.00	0.00
ATOM	119	CZ2 TRP	13	18.311 -22.055	4.033	1.00	0.00
ATOM	120	CH2 TRP	13	18.498 -23.356	4.527	1.00	0.00
ATOM	121	CZ3 TRP	13	17.686 -24.407	4.064	1.00	0.00
ATOM	122	CE3 TRP	13	16.684 -24.164	3.109	1.00	0.00
ATOM	123	CD2 TRP	13	16.467 -22.868	2.594	1.00	0.00
ATOM	124	C TRP	13	12.969 -24.472	1.834	1.00	0.00
ATOM	125	O TRP	13	12.450 -25.174	0.993	1.00	0.00
ATOM	126	N GLU	14	13.424 -24.980	2.973	1.00	0.00
ATOM	127	CA GLU	14	13.265 -26.411	3.177	1.00	0.00
ATOM	128	CB GLU	14	13.849 -26.830	4.532	1.00	0.00
ATOM	129	CG GLU	14	13.963 -28.353	4.646	1.00	0.00
ATOM	130	CD GLU	14	14.473 -28.772	6.022	1.00	0.00

527

528

ATOM	131	OE1	GLU	14	13.790	-29.609	6.652	1.00	0.00
ATOM	132	OE2	GLU	14	15.537	-28.247	6.415	1.00	0.00
ATOM	133	C	GLU	14	11.796	-26.807	2.996	1.00	0.00
ATOM	134	O	GLU	14	11.476	-27.667	2.175	1.00	0.00
ATOM	135	N	GLU	15	10.908	-26.135	3.723	1.00	0.00
ATOM	136	CA	GLU	15	9.485	-26.372	3.636	1.00	0.00
ATOM	137	CB	GLU	15	8.813	-25.790	4.874	1.00	0.00
ATOM	138	CG	GLU	15	9.415	-26.358	6.163	1.00	0.00
ATOM	139	CD	GLU	15	8.463	-26.152	7.329	1.00	0.00
ATOM	140	OE1	GLU	15	8.029	-24.998	7.534	1.00	0.00
ATOM	141	OE2	GLU	15	8.147	-27.160	7.999	1.00	0.00
ATOM	142	C	GLU	15	8.895	-25.826	2.329	1.00	0.00
ATOM	143	O	GLU	15	8.205	-26.556	1.626	1.00	0.00
ATOM	144	N	ASP	16	9.147	-24.558	1.981	1.00	0.00
ATOM	145	CA	ASP	16	8.627	-23.947	0.758	1.00	0.00
ATOM	146	CB	ASP	16	9.152	-22.511	0.608	1.00	0.00
ATOM	147	CG	ASP	16	8.347	-21.509	1.414	1.00	0.00
ATOM	148	OD1	ASP	16	7.350	-21.002	0.853	1.00	0.00
ATOM	149	OD2	ASP	16	8.713	-21.268	2.582	1.00	0.00
ATOM	150	C	ASP	16	9.006	-24.743	-0.493	1.00	0.00
ATOM	151	O	ASP	16	8.157	-25.011	-1.342	1.00	0.00
ATOM	152	N	LYS	17	10.284	-25.112	-0.611	1.00	0.00
ATOM	153	CA	LYS	17	10.816	-25.856	-1.739	1.00	0.00
ATOM	154	CB	LYS	17	12.355	-25.911	-1.658	1.00	0.00
ATOM	155	CG	LYS	17	12.994	-26.594	-2.875	1.00	0.00
ATOM	156	CD	LYS	17	14.422	-27.090	-2.581	1.00	0.00
ATOM	157	CE	LYS	17	14.561	-28.021	-1.360	1.00	0.00
ATOM	158	NZ	LYS	17	13.512	-29.061	-1.299	1.00	0.00
ATOM	159	C	LYS	17	10.159	-27.240	-1.745	1.00	0.00
ATOM	160	O	LYS	17	9.667	-27.668	-2.787	1.00	0.00
ATOM	161	N	ASN	18	10.139	-27.935	-0.595	1.00	0.00
ATOM	162	CA	ASN	18	9.517	-29.254	-0.478	1.00	0.00
ATOM	163	CB	ASN	18	9.557	-29.739	0.980	1.00	0.00
ATOM	164	CG	ASN	18	10.894	-30.362	1.380	1.00	0.00
ATOM	165	OD1	ASN	18	11.878	-30.279	0.643	1.00	0.00
ATOM	166	ND2	ASN	18	10.938	-31.010	2.546	1.00	0.00
ATOM	167	C	ASN	18	8.064	-29.225	-0.956	1.00	0.00
ATOM	168	O	ASN	18	7.664	-30.049	-1.775	1.00	0.00
ATOM	169	N	LEU	19	7.279	-28.277	-0.436	1.00	0.00
ATOM	170	CA	LEU	19	5.874	-28.101	-0.760	1.00	0.00
ATOM	171	CB	LEU	19	5.293	-26.974	0.106	1.00	0.00
ATOM	172	CG	LEU	19	3.807	-26.700	-0.165	1.00	0.00
ATOM	173	CD1	LEU	19	2.936	-27.943	0.038	1.00	0.00
ATOM	174	CD2	LEU	19	3.321	-25.566	0.746	1.00	0.00
ATOM	175	C	LEU	19	5.691	-27.829	-2.250	1.00	0.00
ATOM	176	O	LEU	19	4.898	-28.508	-2.902	1.00	0.00
ATOM	177	N	ARG	20	6.420	-26.844	-2.794	1.00	0.00
ATOM	178	CA	ARG	20	6.328	-26.500	-4.205	1.00	0.00
ATOM	179	CB	ARG	20	7.249	-25.321	-4.546	1.00	0.00
ATOM	180	CG	ARG	20	6.877	-24.725	-5.913	1.00	0.00

(266)

特開2003-135087

529

530

ATOM	181	CD	ARG	20	7.744	-23.510	-6.262	1.00	0.00
ATOM	182	NE	ARG	20	9.110	-23.903	-6.642	1.00	0.00
ATOM	183	CZ	ARG	20	9.490	-24.312	-7.866	1.00	0.00
ATOM	184	NH1	ARG	20	8.607	-24.388	-8.872	1.00	0.00
ATOM	185	NH2	ARG	20	10.770	-24.647	-8.082	1.00	0.00
ATOM	186	C	ARG	20	6.619	-27.730	-5.063	1.00	0.00
ATOM	187	O	ARG	20	5.884	-27.999	-6.010	1.00	0.00
ATOM	188	N	SER	21	7.673	-28.483	-4.721	1.00	0.00
ATOM	189	CA	SER	21	8.045	-29.700	-5.428	1.00	0.00
ATOM	190	CB	SER	21	9.340	-30.284	-4.852	1.00	0.00
ATOM	191	OG	SER	21	10.385	-29.334	-4.909	1.00	0.00
ATOM	192	C	SER	21	6.909	-30.724	-5.349	1.00	0.00
ATOM	193	O	SER	21	6.548	-31.325	-6.358	1.00	0.00
ATOM	194	N	GLY	22	6.344	-30.911	-4.149	1.00	0.00
ATOM	195	CA	GLY	22	5.251	-31.829	-3.888	1.00	0.00
ATOM	196	C	GLY	22	4.063	-31.549	-4.801	1.00	0.00
ATOM	197	O	GLY	22	3.632	-32.431	-5.543	1.00	0.00
ATOM	198	N	VAL	23	3.538	-30.319	-4.758	1.00	0.00
ATOM	199	CA	VAL	23	2.409	-29.934	-5.593	1.00	0.00
ATOM	200	CB	VAL	23	1.894	-28.532	-5.232	1.00	0.00
ATOM	201	CG1	VAL	23	0.716	-28.160	-6.146	1.00	0.00
ATOM	202	CG2	VAL	23	1.401	-28.494	-3.780	1.00	0.00
ATOM	203	C	VAL	23	2.795	-30.046	-7.069	1.00	0.00
ATOM	204	O	VAL	23	2.014	-30.550	-7.866	1.00	0.00
ATOM	205	N	ARG	24	3.995	-29.599	-7.450	1.00	0.00
ATOM	206	CA	ARG	24	4.440	-29.692	-8.833	1.00	0.00
ATOM	207	CB	ARG	24	5.863	-29.128	-8.980	1.00	0.00
ATOM	208	CG	ARG	24	5.856	-27.632	-9.322	1.00	0.00
ATOM	209	CD	ARG	24	5.949	-27.432	-10.840	1.00	0.00
ATOM	210	NE	ARG	24	4.938	-28.222	-11.560	1.00	0.00
ATOM	211	CZ	ARG	24	5.166	-28.949	-12.665	1.00	0.00
ATOM	212	NH1	ARG	24	6.198	-28.660	-13.464	1.00	0.00
ATOM	213	NH2	ARG	24	4.362	-29.981	-12.953	1.00	0.00
ATOM	214	C	ARG	24	4.399	-31.133	-9.346	1.00	0.00
ATOM	215	O	ARG	24	4.007	-31.367	-10.489	1.00	0.00
ATOM	216	N	LYS	25	4.822	-32.078	-8.503	1.00	0.00
ATOM	217	CA	LYS	25	4.892	-33.490	-8.830	1.00	0.00
ATOM	218	CB	LYS	25	5.834	-34.197	-7.840	1.00	0.00
ATOM	219	CG	LYS	25	7.309	-33.817	-8.035	1.00	0.00
ATOM	220	CD	LYS	25	8.099	-34.865	-8.833	1.00	0.00
ATOM	221	CE	LYS	25	7.554	-35.075	-10.252	1.00	0.00
ATOM	222	NZ	LYS	25	8.383	-36.022	-11.022	1.00	0.00
ATOM	223	C	LYS	25	3.545	-34.205	-8.854	1.00	0.00
ATOM	224	O	LYS	25	3.236	-34.876	-9.837	1.00	0.00
ATOM	225	N	TYR	26	2.781	-34.109	-7.765	1.00	0.00
ATOM	226	CA	TYR	26	1.526	-34.836	-7.605	1.00	0.00
ATOM	227	CB	TYR	26	1.517	-35.463	-6.201	1.00	0.00
ATOM	228	CG	TYR	26	2.876	-35.935	-5.714	1.00	0.00
ATOM	229	CD1	TYR	26	3.595	-36.911	-6.431	1.00	0.00
ATOM	230	CE1	TYR	26	4.859	-37.327	-5.977	1.00	0.00

(267)

特開2003-135087

531

532

ATOM	231	CZ	TYR	26	5.407	-36.771	-4.809	1.00	0.00
ATOM	232	OH	TYR	26	6.635	-37.176	-4.374	1.00	0.00
ATOM	233	CE2	TYR	26	4.692	-35.798	-4.092	1.00	0.00
ATOM	234	CD2	TYR	26	3.430	-35.383	-4.545	1.00	0.00
ATOM	235	C	TYR	26	0.273	-33.988	-7.827	1.00	0.00
ATOM	236	O	TYR	26	-0.742	-34.511	-8.281	1.00	0.00
ATOM	237	N	GLY	27	0.339	-32.696	-7.494	1.00	0.00
ATOM	238	CA	GLY	27	-0.785	-31.769	-7.599	1.00	0.00
ATOM	239	C	GLY	27	-1.418	-31.533	-6.226	1.00	0.00
ATOM	240	O	GLY	27	-1.060	-32.190	-5.249	1.00	0.00
ATOM	241	N	GLU	28	-2.372	-30.595	-6.150	1.00	0.00
ATOM	242	CA	GLU	28	-3.083	-30.298	-4.914	1.00	0.00
ATOM	243	CB	GLU	28	-3.914	-29.012	-5.064	1.00	0.00
ATOM	244	CG	GLU	28	-3.039	-27.748	-5.110	1.00	0.00
ATOM	245	CD	GLU	28	-2.779	-27.223	-6.514	1.00	0.00
ATOM	246	OE1	GLU	28	-2.589	-28.059	-7.422	1.00	0.00
ATOM	247	OE2	GLU	28	-2.772	-25.975	-6.644	1.00	0.00
ATOM	248	C	GLU	28	-3.966	-31.488	-4.516	1.00	0.00
ATOM	249	O	GLU	28	-4.146	-32.432	-5.283	1.00	0.00
ATOM	250	N	GLY	29	-4.512	-31.442	-3.298	1.00	0.00
ATOM	251	CA	GLY	29	-5.354	-32.503	-2.771	1.00	0.00
ATOM	252	C	GLY	29	-4.567	-33.790	-2.535	1.00	0.00
ATOM	253	O	GLY	29	-5.125	-34.881	-2.634	1.00	0.00
ATOM	254	N	ASN	30	-3.272	-33.653	-2.222	1.00	0.00
ATOM	255	CA	ASN	30	-2.347	-34.744	-1.940	1.00	0.00
ATOM	256	CB	ASN	30	-1.438	-35.017	-3.158	1.00	0.00
ATOM	257	CG	ASN	30	-2.105	-35.313	-4.502	1.00	0.00
ATOM	258	OD1	ASN	30	-1.478	-35.133	-5.539	1.00	0.00
ATOM	259	ND2	ASN	30	-3.345	-35.792	-4.535	1.00	0.00
ATOM	260	C	ASN	30	-1.461	-34.317	-0.761	1.00	0.00
ATOM	261	O	ASN	30	-0.308	-34.727	-0.688	1.00	0.00
ATOM	262	N	TRP	31	-1.964	-33.471	0.143	1.00	0.00
ATOM	263	CA	TRP	31	-1.205	-32.918	1.264	1.00	0.00
ATOM	264	CB	TRP	31	-2.049	-31.881	2.005	1.00	0.00
ATOM	265	CG	TRP	31	-2.835	-31.013	1.078	1.00	0.00
ATOM	266	CD1	TRP	31	-4.173	-31.055	0.896	1.00	0.00
ATOM	267	NE1	TRP	31	-4.538	-30.125	-0.053	1.00	0.00
ATOM	268	CE2	TRP	31	-3.445	-29.436	-0.526	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.301	-28.418	-1.475	1.00	0.00
ATOM	270	CH2	TRP	31	-2.019	-27.921	-1.741	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.903	-28.437	-1.065	1.00	0.00
ATOM	272	CE3	TRP	31	-1.060	-29.460	-0.114	1.00	0.00
ATOM	273	CD2	TRP	31	-2.336	-29.984	0.180	1.00	0.00
ATOM	274	C	TRP	31	-0.617	-33.994	2.174	1.00	0.00
ATOM	275	O	TRP	31	0.580	-33.975	2.452	1.00	0.00
ATOM	276	N	SER	32	-1.446	-34.942	2.614	1.00	0.00
ATOM	277	CA	SER	32	-1.026	-36.067	3.446	1.00	0.00
ATOM	278	CB	SER	32	-2.247	-36.978	3.700	1.00	0.00
ATOM	279	OG	SER	32	-1.917	-38.350	3.830	1.00	0.00
ATOM	280	C	SER	32	0.126	-36.803	2.753	1.00	0.00

533				534					
ATOM	281	O	SER	32	1.139	-37.137	3.365	1.00	0.00
ATOM	282	N	LYS	33	-0.032	-37.048	1.451	1.00	0.00
ATOM	283	CA	LYS	33	0.953	-37.753	0.647	1.00	0.00
ATOM	284	CB	LYS	33	0.368	-38.093	-0.734	1.00	0.00
ATOM	285	CG	LYS	33	-1.128	-38.477	-0.705	1.00	0.00
ATOM	286	CD	LYS	33	-1.491	-39.533	0.359	1.00	0.00
ATOM	287	CE	LYS	33	-2.992	-39.517	0.697	1.00	0.00
ATOM	288	NZ	LYS	33	-3.260	-40.133	2.013	1.00	0.00
ATOM	289	C	LYS	33	2.254	-36.950	0.598	1.00	0.00
ATOM	290	O	LYS	33	3.324	-37.503	0.840	1.00	0.00
ATOM	291	N	ILE	34	2.158	-35.647	0.317	1.00	0.00
ATOM	292	CA	ILE	34	3.278	-34.716	0.270	1.00	0.00
ATOM	293	CB	ILE	34	2.779	-33.307	-0.120	1.00	0.00
ATOM	294	CG2	ILE	34	3.814	-32.220	0.206	1.00	0.00
ATOM	295	CG1	ILE	34	2.443	-33.290	-1.622	1.00	0.00
ATOM	296	CD1	ILE	34	1.609	-32.080	-2.059	1.00	0.00
ATOM	297	C	ILE	34	4.018	-34.755	1.608	1.00	0.00
ATOM	298	O	ILE	34	5.244	-34.764	1.614	1.00	0.00
ATOM	299	N	LEU	35	3.286	-34.805	2.729	1.00	0.00
ATOM	300	CA	LEU	35	3.854	-34.894	4.070	1.00	0.00
ATOM	301	CB	LEU	35	2.712	-34.887	5.104	1.00	0.00
ATOM	302	CG	LEU	35	3.095	-34.459	6.532	1.00	0.00
ATOM	303	CD1	LEU	35	1.847	-34.575	7.417	1.00	0.00
ATOM	304	CD2	LEU	35	4.210	-35.308	7.152	1.00	0.00
ATOM	305	C	LEU	35	4.704	-36.171	4.154	1.00	0.00
ATOM	306	O	LEU	35	5.834	-36.148	4.639	1.00	0.00
ATOM	307	N	LEU	36	4.175	-37.302	3.671	1.00	0.00
ATOM	308	CA	LEU	36	4.919	-38.556	3.694	1.00	0.00
ATOM	309	CB	LEU	36	4.016	-39.755	3.356	1.00	0.00
ATOM	310	CG	LEU	36	3.351	-40.398	4.587	1.00	0.00
ATOM	311	CD1	LEU	36	2.350	-39.472	5.284	1.00	0.00
ATOM	312	CD2	LEU	36	2.626	-41.681	4.159	1.00	0.00
ATOM	313	C	LEU	36	6.147	-38.504	2.782	1.00	0.00
ATOM	314	O	LEU	36	7.210	-38.992	3.165	1.00	0.00
ATOM	315	N	HIS	37	6.029	-37.922	1.586	1.00	0.00
ATOM	316	CA	HIS	37	7.147	-37.833	0.661	1.00	0.00
ATOM	317	CB	HIS	37	6.663	-37.333	-0.710	1.00	0.00
ATOM	318	CG	HIS	37	5.746	-38.275	-1.451	1.00	0.00
ATOM	319	ND1	HIS	37	6.143	-39.534	-1.874	1.00	0.00
ATOM	320	CE1	HIS	37	5.094	-40.094	-2.502	1.00	0.00
ATOM	321	NE2	HIS	37	4.022	-39.301	-2.531	1.00	0.00
ATOM	322	CD2	HIS	37	4.440	-38.154	-1.865	1.00	0.00
ATOM	323	C	HIS	37	8.238	-36.908	1.212	1.00	0.00
ATOM	324	O	HIS	37	9.368	-37.341	1.437	1.00	0.00
ATOM	325	N	TYR	38	7.887	-35.636	1.413	1.00	0.00
ATOM	326	CA	TYR	38	8.748	-34.563	1.882	1.00	0.00
ATOM	327	CB	TYR	38	8.509	-33.319	1.025	1.00	0.00
ATOM	328	CG	TYR	38	8.808	-33.452	-0.455	1.00	0.00
ATOM	329	CD1	TYR	38	7.794	-33.842	-1.350	1.00	0.00
ATOM	330	CE1	TYR	38	8.076	-33.958	-2.722	1.00	0.00

535				536					
ATOM	331	CZ	TYR	38	9.367	-33.683	-3.201	1.00	0.00
ATOM	332	OH	TYR	38	9.631	-33.795	-4.535	1.00	0.00
ATOM	333	CE2	TYR	38	10.381	-33.293	-2.309	1.00	0.00
ATOM	334	CD2	TYR	38	10.101	-33.179	-0.936	1.00	0.00
ATOM	335	C	TYR	38	8.413	-34.224	3.328	1.00	0.00
ATOM	336	O	TYR	38	7.248	-34.043	3.662	1.00	0.00
ATOM	337	N	LYS	39	9.432	-34.139	4.187	1.00	0.00
ATOM	338	CA	LYS	39	9.237	-33.846	5.596	1.00	0.00
ATOM	339	CB	LYS	39	10.368	-34.465	6.443	1.00	0.00
ATOM	340	CG	LYS	39	10.003	-35.841	7.042	1.00	0.00
ATOM	341	CD	LYS	39	10.326	-37.085	6.195	1.00	0.00
ATOM	342	CE	LYS	39	9.676	-37.087	4.805	1.00	0.00
ATOM	343	NZ	LYS	39	9.672	-38.420	4.182	1.00	0.00
ATOM	344	C	LYS	39	9.060	-32.340	5.817	1.00	0.00
ATOM	345	O	LYS	39	9.443	-31.525	4.976	1.00	0.00
ATOM	346	N	PHE	40	8.453	-32.010	6.961	1.00	0.00
ATOM	347	CA	PHE	40	8.131	-30.667	7.418	1.00	0.00
ATOM	348	CB	PHE	40	6.720	-30.297	6.941	1.00	0.00
ATOM	349	CG	PHE	40	6.522	-30.203	5.444	1.00	0.00
ATOM	350	CD1	PHE	40	6.117	-31.327	4.701	1.00	0.00
ATOM	351	CE1	PHE	40	5.930	-31.222	3.311	1.00	0.00
ATOM	352	CZ	PHE	40	6.144	-29.995	2.660	1.00	0.00
ATOM	353	CE2	PHE	40	6.550	-28.877	3.406	1.00	0.00
ATOM	354	CD2	PHE	40	6.739	-28.978	4.793	1.00	0.00
ATOM	355	C	PHE	40	8.137	-30.659	8.948	1.00	0.00
ATOM	356	O	PHE	40	8.191	-31.717	9.576	1.00	0.00
ATOM	357	N	ASN	41	8.051	-29.467	9.549	1.00	0.00
ATOM	358	CA	ASN	41	8.017	-29.270	10.993	1.00	0.00
ATOM	359	CB	ASN	41	8.424	-27.830	11.345	1.00	0.00
ATOM	360	CG	ASN	41	9.898	-27.546	11.080	1.00	0.00
ATOM	361	OD1	ASN	41	10.685	-27.448	12.019	1.00	0.00
ATOM	362	ND2	ASN	41	10.277	-27.395	9.812	1.00	0.00
ATOM	363	C	ASN	41	6.619	-29.588	11.536	1.00	0.00
ATOM	364	O	ASN	41	5.923	-28.706	12.034	1.00	0.00
ATOM	365	N	ASN	42	6.208	-30.858	11.436	1.00	0.00
ATOM	366	CA	ASN	42	4.916	-31.359	11.901	1.00	0.00
ATOM	367	CB	ASN	42	4.880	-31.345	13.441	1.00	0.00
ATOM	368	CG	ASN	42	3.679	-32.088	14.026	1.00	0.00
ATOM	369	OD1	ASN	42	2.865	-31.503	14.737	1.00	0.00
ATOM	370	ND2	ASN	42	3.569	-33.388	13.754	1.00	0.00
ATOM	371	C	ASN	42	3.733	-30.616	11.262	1.00	0.00
ATOM	372	O	ASN	42	2.726	-30.349	11.915	1.00	0.00
ATOM	373	N	ARG	43	3.845	-30.290	9.970	1.00	0.00
ATOM	374	CA	ARG	43	2.790	-29.610	9.233	1.00	0.00
ATOM	375	CB	ARG	43	3.350	-28.952	7.973	1.00	0.00
ATOM	376	CG	ARG	43	3.925	-27.556	8.194	1.00	0.00
ATOM	377	CD	ARG	43	4.962	-27.451	9.305	1.00	0.00
ATOM	378	NE	ARG	43	5.752	-26.226	9.135	1.00	0.00
ATOM	379	CZ	ARG	43	5.581	-25.055	9.772	1.00	0.00
ATOM	380	NH1	ARG	43	6.404	-24.045	9.482	1.00	0.00

(270)

特開2003-135087

537

538

ATOM	381	NH2	ARG	43	4.607	-24.892	10.676	1.00	0.00
ATOM	382	C	ARG	43	1.745	-30.637	8.812	1.00	0.00
ATOM	383	O	ARG	43	2.079	-31.625	8.162	1.00	0.00
ATOM	384	N	THR	44	0.487	-30.391	9.173	1.00	0.00
ATOM	385	CA	THR	44	-0.630	-31.254	8.832	1.00	0.00
ATOM	386	CB	THR	44	-1.777	-30.980	9.817	1.00	0.00
ATOM	387	CG2	THR	44	-1.352	-31.156	11.279	1.00	0.00
ATOM	388	OG1	THR	44	-2.249	-29.660	9.618	1.00	0.00
ATOM	389	C	THR	44	-1.114	-30.938	7.416	1.00	0.00
ATOM	390	O	THR	44	-0.703	-29.937	6.821	1.00	0.00
ATOM	391	N	SER	45	-2.032	-31.770	6.900	1.00	0.00
ATOM	392	CA	SER	45	-2.648	-31.540	5.602	1.00	0.00
ATOM	393	CB	SER	45	-3.735	-32.583	5.307	1.00	0.00
ATOM	394	OG	SER	45	-3.162	-33.831	4.979	1.00	0.00
ATOM	395	C	SER	45	-3.246	-30.132	5.602	1.00	0.00
ATOM	396	O	SER	45	-3.117	-29.420	4.613	1.00	0.00
ATOM	397	N	VAL	46	-3.871	-29.735	6.723	1.00	0.00
ATOM	398	CA	VAL	46	-4.464	-28.418	6.911	1.00	0.00
ATOM	399	CB	VAL	46	-5.056	-28.267	8.330	1.00	0.00
ATOM	400	CG1	VAL	46	-5.670	-26.877	8.541	1.00	0.00
ATOM	401	CG2	VAL	46	-6.138	-29.313	8.620	1.00	0.00
ATOM	402	C	VAL	46	-3.413	-27.339	6.645	1.00	0.00
ATOM	403	O	VAL	46	-3.636	-26.473	5.804	1.00	0.00
ATOM	404	N	MET	47	-2.276	-27.378	7.355	1.00	0.00
ATOM	405	CA	MET	47	-1.239	-26.361	7.178	1.00	0.00
ATOM	406	CB	MET	47	-0.051	-26.576	8.128	1.00	0.00
ATOM	407	CG	MET	47	-0.465	-26.726	9.594	1.00	0.00
ATOM	408	SD	MET	47	-1.808	-25.640	10.150	1.00	0.00
ATOM	409	CE	MET	47	-2.142	-26.387	11.756	1.00	0.00
ATOM	410	C	MET	47	-0.757	-26.261	5.731	1.00	0.00
ATOM	411	O	MET	47	-0.750	-25.173	5.158	1.00	0.00
ATOM	412	N	LEU	48	-0.351	-27.389	5.144	1.00	0.00
ATOM	413	CA	LEU	48	0.150	-27.447	3.773	1.00	0.00
ATOM	414	CB	LEU	48	0.507	-28.905	3.444	1.00	0.00
ATOM	415	CG	LEU	48	1.696	-29.388	4.294	1.00	0.00
ATOM	416	CD1	LEU	48	1.633	-30.890	4.576	1.00	0.00
ATOM	417	CD2	LEU	48	3.032	-29.090	3.615	1.00	0.00
ATOM	418	C	LEU	48	-0.875	-26.867	2.792	1.00	0.00
ATOM	419	O	LEU	48	-0.551	-26.003	1.975	1.00	0.00
ATOM	420	N	LYS	49	-2.117	-27.343	2.893	1.00	0.00
ATOM	421	CA	LYS	49	-3.253	-26.937	2.080	1.00	0.00
ATOM	422	CB	LYS	49	-4.451	-27.781	2.544	1.00	0.00
ATOM	423	CG	LYS	49	-5.813	-27.507	1.894	1.00	0.00
ATOM	424	CD	LYS	49	-6.673	-26.494	2.667	1.00	0.00
ATOM	425	CE	LYS	49	-6.950	-26.884	4.125	1.00	0.00
ATOM	426	NZ	LYS	49	-7.991	-26.029	4.721	1.00	0.00
ATOM	427	C	LYS	49	-3.505	-25.430	2.175	1.00	0.00
ATOM	428	O	LYS	49	-3.485	-24.735	1.159	1.00	0.00
ATOM	429	N	ASP	50	-3.756	-24.925	3.386	1.00	0.00
ATOM	430	CA	ASP	50	-4.049	-23.515	3.610	1.00	0.00

(271)

特開2003-135087

539

540

ATOM	431	CB	ASP	50	-4.515	-23.266	5.043	1.00	0.00
ATOM	432	CG	ASP	50	-5.881	-23.888	5.267	1.00	0.00
ATOM	433	OD1	ASP	50	-5.997	-24.699	6.207	1.00	0.00
ATOM	434	OD2	ASP	50	-6.794	-23.585	4.463	1.00	0.00
ATOM	435	C	ASP	50	-2.897	-22.609	3.221	1.00	0.00
ATOM	436	O	ASP	50	-3.130	-21.523	2.691	1.00	0.00
ATOM	437	N	ARG	51	-1.663	-23.045	3.462	1.00	0.00
ATOM	438	CA	ARG	51	-0.516	-22.248	3.087	1.00	0.00
ATOM	439	CB	ARG	51	0.763	-22.875	3.625	1.00	0.00
ATOM	440	CG	ARG	51	1.919	-21.944	3.264	1.00	0.00
ATOM	441	CD	ARG	51	3.133	-22.338	4.082	1.00	0.00
ATOM	442	NE	ARG	51	4.184	-21.328	3.977	1.00	0.00
ATOM	443	CZ	ARG	51	5.095	-21.208	3.007	1.00	0.00
ATOM	444	NH1	ARG	51	5.936	-20.174	3.052	1.00	0.00
ATOM	445	NH2	ARG	51	5.170	-22.090	2.006	1.00	0.00
ATOM	446	C	ARG	51	-0.468	-22.116	1.567	1.00	0.00
ATOM	447	O	ARG	51	-0.296	-21.018	1.043	1.00	0.00
ATOM	448	N	TRP	52	-0.631	-23.233	0.851	1.00	0.00
ATOM	449	CA	TRP	52	-0.623	-23.197	-0.599	1.00	0.00
ATOM	450	CB	TRP	52	-0.718	-24.608	-1.166	1.00	0.00
ATOM	451	CG	TRP	52	-0.525	-24.684	-2.646	1.00	0.00
ATOM	452	CD1	TRP	52	-1.508	-24.866	-3.552	1.00	0.00
ATOM	453	NE1	TRP	52	-0.978	-24.902	-4.823	1.00	0.00
ATOM	454	CE2	TRP	52	0.391	-24.731	-4.797	1.00	0.00
ATOM	455	CZ2	TRP	52	1.367	-24.690	-5.803	1.00	0.00
ATOM	456	CH2	TRP	52	2.710	-24.503	-5.445	1.00	0.00
ATOM	457	CZ3	TRP	52	3.057	-24.359	-4.090	1.00	0.00
ATOM	458	CE3	TRP	52	2.071	-24.398	-3.088	1.00	0.00
ATOM	459	CD2	TRP	52	0.710	-24.588	-3.415	1.00	0.00
ATOM	460	C	TRP	52	-1.748	-22.291	-1.101	1.00	0.00
ATOM	461	O	TRP	52	-1.531	-21.523	-2.032	1.00	0.00
ATOM	462	N	ARG	53	-2.934	-22.359	-0.480	1.00	0.00
ATOM	463	CA	ARG	53	-4.080	-21.524	-0.826	1.00	0.00
ATOM	464	CB	ARG	53	-5.290	-21.889	0.048	1.00	0.00
ATOM	465	CG	ARG	53	-6.176	-22.974	-0.580	1.00	0.00
ATOM	466	CD	ARG	53	-6.775	-23.929	0.462	1.00	0.00
ATOM	467	NE	ARG	53	-7.223	-23.276	1.708	1.00	0.00
ATOM	468	CZ	ARG	53	-8.189	-22.361	1.867	1.00	0.00
ATOM	469	NH1	ARG	53	-8.985	-22.013	0.849	1.00	0.00
ATOM	470	NH2	ARG	53	-8.340	-21.817	3.080	1.00	0.00
ATOM	471	C	ARG	53	-3.740	-20.041	-0.663	1.00	0.00
ATOM	472	O	ARG	53	-3.769	-19.304	-1.649	1.00	0.00
ATOM	473	N	THR	54	-3.437	-19.599	0.568	1.00	0.00
ATOM	474	CA	THR	54	-3.126	-18.201	0.854	1.00	0.00
ATOM	475	CB	THR	54	-2.804	-17.963	2.348	1.00	0.00
ATOM	476	CG2	THR	54	-1.415	-18.413	2.802	1.00	0.00
ATOM	477	OG1	THR	54	-2.909	-16.585	2.640	1.00	0.00
ATOM	478	C	THR	54	-2.036	-17.685	-0.085	1.00	0.00
ATOM	479	O	THR	54	-2.181	-16.618	-0.680	1.00	0.00
ATOM	480	N	MET	55	-0.950	-18.449	-0.233	1.00	0.00

541					542				
ATOM	481	CA	MET	55	0.142	-18.050	-1.092	1.00	0.00
ATOM	482	CB	MET	55	1.338	-18.980	-0.930	1.00	0.00
ATOM	483	CG	MET	55	2.122	-18.720	0.362	1.00	0.00
ATOM	484	SD	MET	55	3.807	-19.381	0.352	1.00	0.00
ATOM	485	CE	MET	55	4.544	-18.358	-0.954	1.00	0.00
ATOM	486	C	MET	55	-0.260	-17.964	-2.561	1.00	0.00
ATOM	487	O	MET	55	-0.057	-16.914	-3.161	1.00	0.00
ATOM	488	N	LYS	56	-0.802	-19.030	-3.165	1.00	0.00
ATOM	489	CA	LYS	56	-1.160	-18.987	-4.580	1.00	0.00
ATOM	490	CB	LYS	56	-1.550	-20.357	-5.156	1.00	0.00
ATOM	491	CG	LYS	56	-2.982	-20.845	-4.891	1.00	0.00
ATOM	492	CD	LYS	56	-3.196	-22.141	-5.689	1.00	0.00
ATOM	493	CE	LYS	56	-4.447	-22.908	-5.249	1.00	0.00
ATOM	494	NZ	LYS	56	-4.654	-24.124	-6.063	1.00	0.00
ATOM	495	C	LYS	56	-2.151	-17.865	-4.895	1.00	0.00
ATOM	496	O	LYS	56	-2.103	-17.287	-5.978	1.00	0.00
ATOM	497	N	LYS	57	-3.037	-17.547	-3.946	1.00	0.00
ATOM	498	CA	LYS	57	-4.012	-16.480	-4.103	1.00	0.00
ATOM	499	CB	LYS	57	-5.128	-16.645	-3.059	1.00	0.00
ATOM	500	CG	LYS	57	-6.027	-17.866	-3.315	1.00	0.00
ATOM	501	CD	LYS	57	-6.974	-17.730	-4.519	1.00	0.00
ATOM	502	CE	LYS	57	-7.922	-16.523	-4.460	1.00	0.00
ATOM	503	NZ	LYS	57	-8.697	-16.473	-3.205	1.00	0.00
ATOM	504	C	LYS	57	-3.359	-15.099	-3.964	1.00	0.00
ATOM	505	O	LYS	57	-3.726	-14.188	-4.703	1.00	0.00
ATOM	506	N	LEU	58	-2.431	-14.930	-3.010	1.00	0.00
ATOM	507	CA	LEU	58	-1.791	-13.648	-2.719	1.00	0.00
ATOM	508	CB	LEU	58	-1.682	-13.486	-1.190	1.00	0.00
ATOM	509	CG	LEU	58	-1.768	-12.033	-0.687	1.00	0.00
ATOM	510	CD1	LEU	58	-1.693	-12.037	0.844	1.00	0.00
ATOM	511	CD2	LEU	58	-0.668	-11.120	-1.239	1.00	0.00
ATOM	512	C	LEU	58	-0.442	-13.423	-3.415	1.00	0.00
ATOM	513	O	LEU	58	-0.306	-12.471	-4.180	1.00	0.00
ATOM	514	N	LYS	59	0.570	-14.258	-3.142	1.00	0.00
ATOM	515	CA	LYS	59	1.908	-14.089	-3.694	1.00	0.00
ATOM	516	CB	LYS	59	2.933	-14.755	-2.766	1.00	0.00
ATOM	517	CG	LYS	59	4.325	-14.156	-2.997	1.00	0.00
ATOM	518	CD	LYS	59	5.344	-14.768	-2.028	1.00	0.00
ATOM	519	CE	LYS	59	6.666	-13.992	-2.025	1.00	0.00
ATOM	520	NZ	LYS	59	7.294	-13.948	-3.358	1.00	0.00
ATOM	521	C	LYS	59	1.979	-14.618	-5.124	1.00	0.00
ATOM	522	O	LYS	59	2.552	-13.972	-5.999	1.00	0.00
ATOM	523	N	LEU	60	1.379	-15.791	-5.338	1.00	0.00
ATOM	524	CA	LEU	60	1.273	-16.482	-6.608	1.00	0.00
ATOM	525	CB	LEU	60	0.777	-15.557	-7.734	1.00	0.00
ATOM	526	CG	LEU	60	0.001	-16.289	-8.844	1.00	0.00
ATOM	527	CD1	LEU	60	-0.572	-15.250	-9.816	1.00	0.00
ATOM	528	CD2	LEU	60	0.858	-17.288	-9.633	1.00	0.00
ATOM	529	C	LEU	60	2.529	-17.276	-6.940	1.00	0.00
ATOM	530	O	LEU	60	3.368	-16.865	-7.739	1.00	0.00

543					544				
ATOM	531	N	ILE	61	2.621	-18.454	-6.321	1.00	0.00
ATOM	532	CA	ILE	61	3.709	-19.393	-6.535	1.00	0.00
ATOM	533	CB	ILE	61	3.634	-20.543	-5.516	1.00	0.00
ATOM	534	CG2	ILE	61	4.825	-21.490	-5.741	1.00	0.00
ATOM	535	CG1	ILE	61	3.633	-20.015	-4.073	1.00	0.00
ATOM	536	CD1	ILE	61	3.133	-21.083	-3.099	1.00	0.00
ATOM	537	C	ILE	61	3.581	-19.950	-7.956	1.00	0.00
ATOM	538	O	ILE	61	2.561	-20.547	-8.292	1.00	0.00
ATOM	539	N	SER	62	4.612	-19.766	-8.787	1.00	0.00
ATOM	540	CA	SER	62	4.605	-20.267	-10.154	1.00	0.00
ATOM	541	CB	SER	62	5.699	-19.572	-10.969	1.00	0.00
ATOM	542	OG	SER	62	5.614	-19.949	-12.328	1.00	0.00
ATOM	543	C	SER	62	4.788	-21.789	-10.151	1.00	0.00
ATOM	544	O	SER	62	5.629	-22.316	-9.418	1.00	0.00
ATOM	545	N	SER	63	4.000	-22.485	-10.975	1.00	0.00
ATOM	546	CA	SER	63	4.024	-23.931	-11.122	1.00	0.00
ATOM	547	CB	SER	63	3.005	-24.564	-10.166	1.00	0.00
ATOM	548	OG	SER	63	1.728	-23.986	-10.347	1.00	0.00
ATOM	549	C	SER	63	3.703	-24.268	-12.578	1.00	0.00
ATOM	550	O	SER	63	2.620	-23.928	-13.052	1.00	0.00
ATOM	551	N	ASP	64	4.634	-24.922	-13.282	1.00	0.00
ATOM	552	CA	ASP	64	4.470	-25.288	-14.684	1.00	0.00
ATOM	553	CB	ASP	64	5.765	-25.866	-15.294	1.00	0.00
ATOM	554	CG	ASP	64	7.044	-25.555	-14.518	1.00	0.00
ATOM	555	OD1	ASP	64	7.878	-24.797	-15.051	1.00	0.00
ATOM	556	OD2	ASP	64	7.159	-26.098	-13.395	1.00	0.00
ATOM	557	C	ASP	64	3.321	-26.288	-14.838	1.00	0.00
ATOM	558	O	ASP	64	3.127	-27.151	-13.981	1.00	0.00
ATOM	559	N	SER	65	2.567	-26.176	-15.935	1.00	0.00
ATOM	560	CA	SER	65	1.445	-27.045	-16.256	1.00	0.00
ATOM	561	CB	SER	65	0.251	-26.744	-15.335	1.00	0.00
ATOM	562	OG	SER	65	-0.716	-27.772	-15.436	1.00	0.00
ATOM	563	C	SER	65	1.078	-26.848	-17.729	1.00	0.00
ATOM	564	O	SER	65	1.786	-26.152	-18.458	1.00	0.00
ATOM	565	N	GLU	66	-0.031	-27.459	-18.156	1.00	0.00
ATOM	566	CA	GLU	66	-0.538	-27.360	-19.518	1.00	0.00
ATOM	567	CB	GLU	66	-1.499	-28.520	-19.814	1.00	0.00
ATOM	568	CG	GLU	66	-2.726	-28.589	-18.894	1.00	0.00
ATOM	569	CD	GLU	66	-3.564	-29.820	-19.214	1.00	0.00
ATOM	570	OE1	GLU	66	-4.481	-29.688	-20.054	1.00	0.00
ATOM	571	OE2	GLU	66	-3.260	-30.882	-18.626	1.00	0.00
ATOM	572	C	GLU	66	-1.168	-25.985	-19.768	1.00	0.00
ATOM	573	O	GLU	66	-1.147	-25.500	-20.899	1.00	0.00
ATOM	574	N	ASP	67	-1.712	-25.365	-18.714	1.00	0.00
ATOM	575	CA	ASP	67	-2.342	-24.054	-18.725	1.00	0.00
ATOM	576	CB	ASP	67	-3.853	-24.213	-18.932	1.00	0.00
ATOM	577	CG	ASP	67	-4.569	-22.867	-18.997	1.00	0.00
ATOM	578	OD1	ASP	67	-4.355	-22.154	-20.003	1.00	0.00
ATOM	579	OD2	ASP	67	-5.347	-22.583	-18.060	1.00	0.00
ATOM	580	C	ASP	67	-2.027	-23.383	-17.386	1.00	0.00

(274)

特開2003-135087

545				546			
ATOM	581	OT1 ASP	67	-1.342	-22.338	-17.442	1.00 0.00
ATOM	582	OT2 ASP	67	-2.074	-24.135	-16.385	1.00 0.00
ATOM	583	O5' GUA	68	-7.343	-40.164	10.901	1.00 0.00
ATOM	584	C5' GUA	68	-7.097	-41.070	9.846	1.00 0.00
ATOM	585	C4' GUA	68	-7.307	-40.382	8.494	1.00 0.00
ATOM	586	O4' GUA	68	-8.598	-39.810	8.426	1.00 0.00
ATOM	587	C1' GUA	68	-8.590	-38.788	7.453	1.00 0.00
ATOM	588	N9 GUA	68	-9.745	-37.894	7.695	1.00 0.00
ATOM	589	C8 GUA	68	-10.145	-37.339	8.884	1.00 0.00
ATOM	590	N7 GUA	68	-11.271	-36.687	8.823	1.00 0.00
ATOM	591	C5 GUA	68	-11.649	-36.807	7.489	1.00 0.00
ATOM	592	C6 GUA	68	-12.802	-36.308	6.811	1.00 0.00
ATOM	593	O6 GUA	68	-13.756	-35.694	7.285	1.00 0.00
ATOM	594	N1 GUA	68	-12.776	-36.586	5.449	1.00 0.00
ATOM	595	C2 GUA	68	-11.779	-37.299	4.814	1.00 0.00
ATOM	596	N2 GUA	68	-11.877	-37.474	3.496	1.00 0.00
ATOM	597	N3 GUA	68	-10.716	-37.805	5.455	1.00 0.00
ATOM	598	C4 GUA	68	-10.706	-37.521	6.786	1.00 0.00
ATOM	599	C3' GUA	68	-6.320	-39.236	8.221	1.00 0.00
ATOM	600	C2' GUA	68	-7.259	-38.112	7.745	1.00 0.00
ATOM	601	O3' GUA	68	-5.389	-39.704	7.249	1.00 0.00
ATOM	602	P THY	69	-4.194	-38.794	6.639	1.00 0.00
ATOM	603	OP1 THY	69	-3.341	-39.631	5.761	1.00 0.00
ATOM	604	OP2 THY	69	-3.584	-38.001	7.727	1.00 0.00
ATOM	605	O5' THY	69	-4.996	-37.801	5.675	1.00 0.00
ATOM	606	C5' THY	69	-5.880	-38.311	4.698	1.00 0.00
ATOM	607	C4' THY	69	-6.818	-37.221	4.179	1.00 0.00
ATOM	608	O4' THY	69	-7.808	-36.723	5.040	1.00 0.00
ATOM	609	C1' THY	69	-8.295	-35.537	4.454	1.00 0.00
ATOM	610	N1 THY	69	-9.148	-34.804	5.421	1.00 0.00
ATOM	611	C6 THY	69	-8.776	-34.732	6.740	1.00 0.00
ATOM	612	C5 THY	69	-9.547	-34.081	7.647	1.00 0.00
ATOM	613	C7 THY	69	-9.021	-34.038	9.070	1.00 0.00
ATOM	614	C4 THY	69	-10.804	-33.464	7.271	1.00 0.00
ATOM	615	O4 THY	69	-11.561	-32.855	8.021	1.00 0.00
ATOM	616	N3 THY	69	-11.124	-33.613	5.932	1.00 0.00
ATOM	617	C2 THY	69	-10.350	-34.250	4.976	1.00 0.00
ATOM	618	O2 THY	69	-10.730	-34.307	3.810	1.00 0.00
ATOM	619	C3' THY	69	-6.085	-35.977	3.673	1.00 0.00
ATOM	620	C2' THY	69	-6.977	-34.830	4.164	1.00 0.00
ATOM	621	O3' THY	69	-5.939	-36.053	2.269	1.00 0.00
ATOM	622	P THY	70	-5.076	-34.965	1.460	1.00 0.00
ATOM	623	OP1 THY	70	-4.529	-35.617	0.254	1.00 0.00
ATOM	624	OP2 THY	70	-4.140	-34.333	2.419	1.00 0.00
ATOM	625	O5' THY	70	-6.192	-33.879	1.030	1.00 0.00
ATOM	626	C5' THY	70	-7.272	-34.216	0.170	1.00 0.00
ATOM	627	C4' THY	70	-8.396	-33.174	0.263	1.00 0.00
ATOM	628	O4' THY	70	-8.845	-33.051	1.595	1.00 0.00
ATOM	629	C1' THY	70	-9.568	-31.844	1.691	1.00 0.00
ATOM	630	N1 THY	70	-9.710	-31.427	3.107	1.00 0.00

(275)

特開2003-135087

547

548

ATOM	631	C6	THY	70	-8.638	-31.529	3.957	1.00	0.00
ATOM	632	C5	THY	70	-8.739	-31.161	5.257	1.00	0.00
ATOM	633	C7	THY	70	-7.485	-31.340	6.090	1.00	0.00
ATOM	634	C4	THY	70	-9.977	-30.635	5.803	1.00	0.00
ATOM	635	O4	THY	70	-10.142	-30.217	6.946	1.00	0.00
ATOM	636	N3	THY	70	-11.022	-30.617	4.896	1.00	0.00
ATOM	637	C2	THY	70	-10.934	-30.925	3.548	1.00	0.00
ATOM	638	O2	THY	70	-11.882	-30.713	2.799	1.00	0.00
ATOM	639	C3'	THY	70	-7.985	-31.748	-0.124	1.00	0.00
ATOM	640	C2'	THY	70	-8.700	-30.866	0.905	1.00	0.00
ATOM	641	O3'	THY	70	-8.364	-31.468	-1.460	1.00	0.00
ATOM	642	P	ADE	71	-7.948	-30.093	-2.203	1.00	0.00
ATOM	643	OP1	ADE	71	-8.133	-30.273	-3.658	1.00	0.00
ATOM	644	OP2	ADE	71	-6.632	-29.663	-1.680	1.00	0.00
ATOM	645	O5'	ADE	71	-9.036	-29.035	-1.679	1.00	0.00
ATOM	646	C5'	ADE	71	-10.383	-29.064	-2.105	1.00	0.00
ATOM	647	C4'	ADE	71	-11.175	-27.945	-1.412	1.00	0.00
ATOM	648	O4'	ADE	71	-11.466	-28.277	-0.053	1.00	0.00
ATOM	649	C1'	ADE	71	-11.237	-27.133	0.744	1.00	0.00
ATOM	650	N9	ADE	71	-11.020	-27.432	2.177	1.00	0.00
ATOM	651	C8	ADE	71	-9.900	-27.983	2.733	1.00	0.00
ATOM	652	N7	ADE	71	-9.859	-27.966	4.028	1.00	0.00
ATOM	653	C5	ADE	71	-11.060	-27.373	4.370	1.00	0.00
ATOM	654	C6	ADE	71	-11.598	-27.017	5.614	1.00	0.00
ATOM	655	N6	ADE	71	-10.945	-27.281	6.748	1.00	0.00
ATOM	656	N1	ADE	71	-12.774	-26.370	5.649	1.00	0.00
ATOM	657	C2	ADE	71	-13.394	-26.116	4.494	1.00	0.00
ATOM	658	N3	ADE	71	-12.987	-26.397	3.256	1.00	0.00
ATOM	659	C4	ADE	71	-11.786	-27.037	3.257	1.00	0.00
ATOM	660	C3'	ADE	71	-10.393	-26.617	-1.364	1.00	0.00
ATOM	661	C2'	ADE	71	-9.937	-26.664	0.094	1.00	0.00
ATOM	662	O3'	ADE	71	-11.297	-25.564	-1.623	1.00	0.00
ATOM	663	P	GUA	72	-10.860	-24.024	-1.819	1.00	0.00
ATOM	664	OP1	GUA	72	-9.570	-23.766	-1.138	1.00	0.00
ATOM	665	OP2	GUA	72	-11.036	-23.647	-3.236	1.00	0.00
ATOM	666	O5'	GUA	72	-12.001	-23.314	-0.949	1.00	0.00
ATOM	667	C5'	GUA	72	-13.373	-23.498	-1.238	1.00	0.00
ATOM	668	C4'	GUA	72	-14.214	-22.881	-0.119	1.00	0.00
ATOM	669	O4'	GUA	72	-13.878	-23.504	1.115	1.00	0.00
ATOM	670	C1'	GUA	72	-13.452	-22.550	2.069	1.00	0.00
ATOM	671	N9	GUA	72	-12.346	-23.106	2.890	1.00	0.00
ATOM	672	C8	GUA	72	-11.205	-23.726	2.452	1.00	0.00
ATOM	673	N7	GUA	72	-10.396	-24.115	3.399	1.00	0.00
ATOM	674	C5	GUA	72	-11.050	-23.721	4.562	1.00	0.00
ATOM	675	C6	GUA	72	-10.671	-23.886	5.927	1.00	0.00
ATOM	676	O6	GUA	72	-9.632	-24.378	6.362	1.00	0.00
ATOM	677	N1	GUA	72	-11.645	-23.440	6.812	1.00	0.00
ATOM	678	C2	GUA	72	-12.844	-22.871	6.430	1.00	0.00
ATOM	679	N2	GUA	72	-13.669	-22.457	7.393	1.00	0.00
ATOM	680	N3	GUA	72	-13.184	-22.676	5.147	1.00	0.00

(276)

特開2003-135087

549

550

ATOM	681	C4	GUA	72	-12.255	-23.126	4.262	1.00	0.00
ATOM	682	C3'	GUA	72	-13.924	-21.387	0.043	1.00	0.00
ATOM	683	C2'	GUA	72	-12.949	-21.389	1.217	1.00	0.00
ATOM	684	O3'	GUA	72	-15.134	-20.704	0.313	1.00	0.00
ATOM	685	P	GUA	73	-15.207	-19.094	0.419	1.00	0.00
ATOM	686	OP1	GUA	73	-14.024	-18.519	-0.260	1.00	0.00
ATOM	687	OP2	GUA	73	-16.566	-18.664	0.023	1.00	0.00
ATOM	688	O5'	GUA	73	-15.040	-18.861	2.001	1.00	0.00
ATOM	689	C5'	GUA	73	-16.043	-19.283	2.903	1.00	0.00
ATOM	690	C4'	GUA	73	-15.580	-19.058	4.344	1.00	0.00
ATOM	691	O4'	GUA	73	-14.384	-19.779	4.580	1.00	0.00
ATOM	692	C1'	GUA	73	-13.545	-19.006	5.407	1.00	0.00
ATOM	693	N9	GUA	73	-12.145	-19.470	5.290	1.00	0.00
ATOM	694	C8	GUA	73	-11.368	-19.573	4.166	1.00	0.00
ATOM	695	N7	GUA	73	-10.199	-20.114	4.362	1.00	0.00
ATOM	696	C5	GUA	73	-10.184	-20.364	5.731	1.00	0.00
ATOM	697	C6	GUA	73	-9.164	-20.931	6.551	1.00	0.00
ATOM	698	O6	GUA	73	-8.056	-21.332	6.204	1.00	0.00
ATOM	699	N1	GUA	73	-9.543	-21.023	7.887	1.00	0.00
ATOM	700	C2	GUA	73	-10.760	-20.607	8.382	1.00	0.00
ATOM	701	N2	GUA	73	-10.965	-20.738	9.691	1.00	0.00
ATOM	702	N3	GUA	73	-11.713	-20.057	7.620	1.00	0.00
ATOM	703	C4	GUA	73	-11.367	-19.964	6.308	1.00	0.00
ATOM	704	C3'	GUA	73	-15.270	-17.586	4.672	1.00	0.00
ATOM	705	C2'	GUA	73	-13.747	-17.615	4.820	1.00	0.00
ATOM	706	O3'	GUA	73	-15.945	-17.244	5.873	1.00	0.00
ATOM	707	P	GUA	74	-15.889	-15.769	6.530	1.00	0.00
ATOM	708	OP1	GUA	74	-17.265	-15.372	6.903	1.00	0.00
ATOM	709	OP2	GUA	74	-15.077	-14.882	5.668	1.00	0.00
ATOM	710	O5'	GUA	74	-15.061	-16.064	7.880	1.00	0.00
ATOM	711	C5'	GUA	74	-15.614	-16.871	8.905	1.00	0.00
ATOM	712	C4'	GUA	74	-14.627	-17.068	10.060	1.00	0.00
ATOM	713	O4'	GUA	74	-13.438	-17.668	9.573	1.00	0.00
ATOM	714	C1'	GUA	74	-12.318	-16.989	10.096	1.00	0.00
ATOM	715	N9	GUA	74	-11.165	-17.136	9.183	1.00	0.00
ATOM	716	C8	GUA	74	-11.112	-16.878	7.836	1.00	0.00
ATOM	717	N7	GUA	74	-9.969	-17.167	7.280	1.00	0.00
ATOM	718	C5	GUA	74	-9.207	-17.661	8.332	1.00	0.00
ATOM	719	C6	GUA	74	-7.882	-18.190	8.334	1.00	0.00
ATOM	720	O6	GUA	74	-7.127	-18.329	7.376	1.00	0.00
ATOM	721	N1	GUA	74	-7.470	-18.594	9.599	1.00	0.00
ATOM	722	C2	GUA	74	-8.257	-18.529	10.732	1.00	0.00
ATOM	723	N2	GUA	74	-7.718	-18.917	11.889	1.00	0.00
ATOM	724	N3	GUA	74	-9.508	-18.050	10.728	1.00	0.00
ATOM	725	C4	GUA	74	-9.926	-17.638	9.503	1.00	0.00
ATOM	726	C3'	GUA	74	-14.203	-15.757	10.742	1.00	0.00
ATOM	727	C2'	GUA	74	-12.808	-15.546	10.156	1.00	0.00
ATOM	728	O3'	GUA	74	-14.182	-15.967	12.147	1.00	0.00
ATOM	729	P	THY	75	-13.816	-14.802	13.205	1.00	0.00
ATOM	730	OP1	THY	75	-13.649	-13.525	12.477	1.00	0.00

(277)

特開2003-135087

551				552			
ATOM	731	OP2 THY	75	-14.769	-14.884	14.334	1.00 0.00
ATOM	732	O5' THY	75	-12.368	-15.272	13.733	1.00 0.00
ATOM	733	C5' THY	75	-12.223	-16.457	14.495	1.00 0.00
ATOM	734	C4' THY	75	-10.761	-16.673	14.894	1.00 0.00
ATOM	735	O4' THY	75	-9.962	-16.742	13.726	1.00 0.00
ATOM	736	C1' THY	75	-8.798	-15.965	13.899	1.00 0.00
ATOM	737	N1 THY	75	-8.282	-15.540	12.569	1.00 0.00
ATOM	738	C6 THY	75	-9.098	-14.862	11.691	1.00 0.00
ATOM	739	C5 THY	75	-8.677	-14.546	10.439	1.00 0.00
ATOM	740	C7 THY	75	-9.638	-13.746	9.578	1.00 0.00
ATOM	741	C4 THY	75	-7.371	-14.948	9.955	1.00 0.00
ATOM	742	O4 THY	75	-6.932	-14.770	8.823	1.00 0.00
ATOM	743	N3 THY	75	-6.604	-15.600	10.903	1.00 0.00
ATOM	744	C2 THY	75	-6.986	-15.905	12.199	1.00 0.00
ATOM	745	O2 THY	75	-6.200	-16.475	12.950	1.00 0.00
ATOM	746	C3' THY	75	-10.204	-15.519	15.744	1.00 0.00
ATOM	747	C2' THY	75	-9.301	-14.797	14.745	1.00 0.00
ATOM	748	O3' THY	75	-9.493	-16.050	16.850	1.00 0.00
ATOM	749	P THY	76	-8.847	-15.106	17.990	1.00 0.00
ATOM	750	OP1 THY	76	-9.378	-13.735	17.832	1.00 0.00
ATOM	751	OP2 THY	76	-8.970	-15.796	19.293	1.00 0.00
ATOM	752	O5' THY	76	-7.293	-15.089	17.574	1.00 0.00
ATOM	753	C5' THY	76	-6.476	-16.226	17.769	1.00 0.00
ATOM	754	C4' THY	76	-5.065	-15.957	17.247	1.00 0.00
ATOM	755	O4' THY	76	-5.119	-15.704	15.851	1.00 0.00
ATOM	756	C1' THY	76	-4.282	-14.611	15.553	1.00 0.00
ATOM	757	N1 THY	76	-4.635	-14.018	14.232	1.00 0.00
ATOM	758	C6 THY	76	-5.788	-13.286	14.068	1.00 0.00
ATOM	759	C5 THY	76	-6.108	-12.733	12.872	1.00 0.00
ATOM	760	C7 THY	76	-7.407	-11.950	12.819	1.00 0.00
ATOM	761	C4 THY	76	-5.249	-12.881	11.717	1.00 0.00
ATOM	762	O4 THY	76	-5.444	-12.375	10.616	1.00 0.00
ATOM	763	N3 THY	76	-4.145	-13.688	11.937	1.00 0.00
ATOM	764	C2 THY	76	-3.803	-14.290	13.140	1.00 0.00
ATOM	765	O2 THY	76	-2.813	-15.020	13.203	1.00 0.00
ATOM	766	C3' THY	76	-4.412	-14.719	17.888	1.00 0.00
ATOM	767	C2' THY	76	-4.534	-13.698	16.758	1.00 0.00
ATOM	768	O3' THY	76	-3.059	-15.023	18.163	1.00 0.00
ATOM	769	P ADE	77	-2.125	-14.109	19.111	1.00 0.00
ATOM	770	OP1 ADE	77	-2.500	-12.688	18.945	1.00 0.00
ATOM	771	OP2 ADE	77	-2.077	-14.715	20.458	1.00 0.00
ATOM	772	O5' ADE	77	-0.706	-14.336	18.392	1.00 0.00
ATOM	773	C5' ADE	77	-0.142	-15.628	18.286	1.00 0.00
ATOM	774	C4' ADE	77	0.748	-15.694	17.044	1.00 0.00
ATOM	775	O4' ADE	77	0.022	-15.197	15.929	1.00 0.00
ATOM	776	C1' ADE	77	0.789	-14.242	15.221	1.00 0.00
ATOM	777	N9 ADE	77	-0.125	-13.279	14.562	1.00 0.00
ATOM	778	C8 ADE	77	-1.255	-12.701	15.085	1.00 0.00
ATOM	779	N7 ADE	77	-1.963	-12.026	14.223	1.00 0.00
ATOM	780	C5 ADE	77	-1.231	-12.134	13.048	1.00 0.00

(278)

特開2003-135087

553

554

ATOM	781	C6	ADE	77	-1.438	-11.639	11.746	1.00	0.00
ATOM	782	N6	ADE	77	-2.525	-10.939	11.420	1.00	0.00
ATOM	783	N1	ADE	77	-0.500	-11.864	10.807	1.00	0.00
ATOM	784	C2	ADE	77	0.572	-12.580	11.139	1.00	0.00
ATOM	785	N3	ADE	77	0.854	-13.155	12.306	1.00	0.00
ATOM	786	C4	ADE	77	-0.093	-12.874	13.245	1.00	0.00
ATOM	787	C3'	ADE	77	2.026	-14.859	17.125	1.00	0.00
ATOM	788	C2'	ADE	77	1.648	-13.618	16.316	1.00	0.00
ATOM	789	O3'	ADE	77	3.056	-15.613	16.506	1.00	0.00
ATOM	790	P	GUA	78	4.601	-15.420	16.910	1.00	0.00
ATOM	791	OP1	GUA	78	5.394	-16.455	16.212	1.00	0.00
ATOM	792	OP2	GUA	78	4.690	-15.307	18.382	1.00	0.00
ATOM	793	O5'	GUA	78	4.937	-13.991	16.270	1.00	0.00
ATOM	794	C5'	GUA	78	5.619	-13.868	15.039	1.00	0.00
ATOM	795	C4'	GUA	78	5.604	-12.407	14.587	1.00	0.00
ATOM	796	O4'	GUA	78	4.291	-12.009	14.252	1.00	0.00
ATOM	797	C1'	GUA	78	4.230	-10.607	14.366	1.00	0.00
ATOM	798	N9	GUA	78	2.815	-10.164	14.313	1.00	0.00
ATOM	799	C8	GUA	78	1.812	-10.327	15.239	1.00	0.00
ATOM	800	N7	GUA	78	0.638	-9.933	14.832	1.00	0.00
ATOM	801	C5	GUA	78	0.872	-9.454	13.549	1.00	0.00
ATOM	802	C6	GUA	78	-0.023	-8.863	12.607	1.00	0.00
ATOM	803	O6	GUA	78	-1.224	-8.634	12.732	1.00	0.00
ATOM	804	N1	GUA	78	0.615	-8.512	11.424	1.00	0.00
ATOM	805	C2	GUA	78	1.957	-8.698	11.172	1.00	0.00
ATOM	806	N2	GUA	78	2.427	-8.315	9.984	1.00	0.00
ATOM	807	N3	GUA	78	2.801	-9.245	12.055	1.00	0.00
ATOM	808	C4	GUA	78	2.201	-9.594	13.224	1.00	0.00
ATOM	809	C3'	GUA	78	6.062	-11.418	15.675	1.00	0.00
ATOM	810	C2'	GUA	78	4.921	-10.389	15.710	1.00	0.00
ATOM	811	O3'	GUA	78	7.328	-10.895	15.313	1.00	0.00
ATOM	812	P	GUA	79	8.158	-9.898	16.276	1.00	0.00
ATOM	813	OP1	GUA	79	9.598	-10.048	15.969	1.00	0.00
ATOM	814	OP2	GUA	79	7.677	-10.061	17.665	1.00	0.00
ATOM	815	O5'	GUA	79	7.670	-8.468	15.730	1.00	0.00
ATOM	816	C5'	GUA	79	8.026	-8.033	14.433	1.00	0.00
ATOM	817	C4'	GUA	79	7.136	-6.867	14.009	1.00	0.00
ATOM	818	O4'	GUA	79	5.772	-7.233	14.071	1.00	0.00
ATOM	819	C1'	GUA	79	5.025	-6.044	14.122	1.00	0.00
ATOM	820	N9	GUA	79	3.637	-6.324	14.552	1.00	0.00
ATOM	821	C8	GUA	79	3.216	-6.996	15.672	1.00	0.00
ATOM	822	N7	GUA	79	1.921	-7.063	15.801	1.00	0.00
ATOM	823	C5	GUA	79	1.439	-6.414	14.669	1.00	0.00
ATOM	824	C6	GUA	79	0.096	-6.190	14.238	1.00	0.00
ATOM	825	O6	GUA	79	-0.951	-6.472	14.817	1.00	0.00
ATOM	826	N1	GUA	79	0.033	-5.579	12.991	1.00	0.00
ATOM	827	C2	GUA	79	1.133	-5.196	12.253	1.00	0.00
ATOM	828	N2	GUA	79	0.905	-4.633	11.066	1.00	0.00
ATOM	829	N3	GUA	79	2.396	-5.370	12.671	1.00	0.00
ATOM	830	C4	GUA	79	2.482	-5.990	13.880	1.00	0.00

555					556				
ATOM	831	C3'	GUA	79	7.270	-5.624	14.901	1.00	0.00
ATOM	832	C2'	GUA	79	5.806	-5.238	15.158	1.00	0.00
ATOM	833	O3'	GUA	79	8.024	-4.648	14.199	1.00	0.00
ATOM	834	P	GUA	80	8.363	-3.190	14.806	1.00	0.00
ATOM	835	OP1	GUA	80	8.273	-3.248	16.281	1.00	0.00
ATOM	836	OP2	GUA	80	9.596	-2.692	14.159	1.00	0.00
ATOM	837	O5'	GUA	80	7.129	-2.317	14.257	1.00	0.00
ATOM	838	C5'	GUA	80	6.958	-2.101	12.870	1.00	0.00
ATOM	839	C4'	GUA	80	5.581	-1.493	12.604	1.00	0.00
ATOM	840	O4'	GUA	80	4.575	-2.345	13.114	1.00	0.00
ATOM	841	C1'	GUA	80	3.519	-1.537	13.572	1.00	0.00
ATOM	842	N9	GUA	80	2.623	-2.288	14.474	1.00	0.00
ATOM	843	C8	GUA	80	2.930	-2.925	15.648	1.00	0.00
ATOM	844	N7	GUA	80	1.901	-3.431	16.267	1.00	0.00
ATOM	845	C5	GUA	80	0.830	-3.121	15.436	1.00	0.00
ATOM	846	C6	GUA	80	-0.562	-3.399	15.582	1.00	0.00
ATOM	847	O6	GUA	80	-1.132	-3.965	16.512	1.00	0.00
ATOM	848	N1	GUA	80	-1.304	-2.961	14.492	1.00	0.00
ATOM	849	C2	GUA	80	-0.783	-2.306	13.397	1.00	0.00
ATOM	850	N2	GUA	80	-1.634	-1.929	12.441	1.00	0.00
ATOM	851	N3	GUA	80	0.518	-2.011	13.273	1.00	0.00
ATOM	852	C4	GUA	80	1.269	-2.449	14.319	1.00	0.00
ATOM	853	C3'	GUA	80	5.373	-0.132	13.290	1.00	0.00
ATOM	854	C2'	GUA	80	4.278	-0.437	14.307	1.00	0.00
ATOM	855	O3'	GUA	80	4.901	0.824	12.365	1.00	0.00
ATOM	856	O5'	CYT	81	-10.800	-1.763	14.957	1.00	0.00
ATOM	857	C5'	CYT	81	-10.346	-0.641	14.230	1.00	0.00
ATOM	858	C4'	CYT	81	-9.022	-0.957	13.529	1.00	0.00
ATOM	859	O4'	CYT	81	-8.062	-1.447	14.439	1.00	0.00
ATOM	860	C1'	CYT	81	-7.042	-2.036	13.662	1.00	0.00
ATOM	861	N1	CYT	81	-6.168	-2.908	14.481	1.00	0.00
ATOM	862	C6	CYT	81	-6.715	-3.790	15.379	1.00	0.00
ATOM	863	C5	CYT	81	-5.946	-4.635	16.102	1.00	0.00
ATOM	864	C4	CYT	81	-4.526	-4.552	15.904	1.00	0.00
ATOM	865	N4	CYT	81	-3.691	-5.331	16.595	1.00	0.00
ATOM	866	N3	CYT	81	-4.004	-3.706	15.008	1.00	0.00
ATOM	867	C2	CYT	81	-4.791	-2.884	14.264	1.00	0.00
ATOM	868	O2	CYT	81	-4.280	-2.158	13.415	1.00	0.00
ATOM	869	C3'	CYT	81	-9.127	-2.058	12.465	1.00	0.00
ATOM	870	C2'	CYT	81	-7.838	-2.861	12.658	1.00	0.00
ATOM	871	O3'	CYT	81	-9.237	-1.454	11.188	1.00	0.00
ATOM	872	P	CYT	82	-9.361	-2.314	9.827	1.00	0.00
ATOM	873	OP1	CYT	82	-10.142	-1.518	8.855	1.00	0.00
ATOM	874	OP2	CYT	82	-9.799	-3.682	10.182	1.00	0.00
ATOM	875	O5'	CYT	82	-7.833	-2.395	9.312	1.00	0.00
ATOM	876	C5'	CYT	82	-7.159	-1.251	8.818	1.00	0.00
ATOM	877	C4'	CYT	82	-5.738	-1.606	8.361	1.00	0.00
ATOM	878	O4'	CYT	82	-4.985	-2.110	9.445	1.00	0.00
ATOM	879	C1'	CYT	82	-4.159	-3.176	9.024	1.00	0.00
ATOM	880	N1	CYT	82	-3.977	-4.074	10.194	1.00	0.00

(280)

特開2003-135087

557

558

ATOM	881	C6	CYT	82	-5.085	-4.517	10.863	1.00	0.00
ATOM	882	C5	CYT	82	-4.995	-5.280	11.968	1.00	0.00
ATOM	883	C4	CYT	82	-3.673	-5.615	12.420	1.00	0.00
ATOM	884	N4	CYT	82	-3.507	-6.444	13.451	1.00	0.00
ATOM	885	N3	CYT	82	-2.584	-5.156	11.781	1.00	0.00
ATOM	886	C2	CYT	82	-2.699	-4.383	10.660	1.00	0.00
ATOM	887	O2	CYT	82	-1.689	-3.988	10.080	1.00	0.00
ATOM	888	C3'	CYT	82	-5.719	-2.689	7.274	1.00	0.00
ATOM	889	C2'	CYT	82	-4.979	-3.855	7.927	1.00	0.00
ATOM	890	O3'	CYT	82	-5.064	-2.168	6.126	1.00	0.00
ATOM	891	P	CYT	83	-5.063	-2.936	4.704	1.00	0.00
ATOM	892	OP1	CYT	83	-4.921	-1.923	3.635	1.00	0.00
ATOM	893	OP2	CYT	83	-6.201	-3.880	4.680	1.00	0.00
ATOM	894	O5'	CYT	83	-3.703	-3.795	4.772	1.00	0.00
ATOM	895	C5'	CYT	83	-2.462	-3.263	4.341	1.00	0.00
ATOM	896	C4'	CYT	83	-1.338	-4.248	4.681	1.00	0.00
ATOM	897	O4'	CYT	83	-1.321	-4.464	6.075	1.00	0.00
ATOM	898	C1'	CYT	83	-0.658	-5.676	6.359	1.00	0.00
ATOM	899	N1	CYT	83	-1.353	-6.341	7.489	1.00	0.00
ATOM	900	C6	CYT	83	-2.708	-6.532	7.429	1.00	0.00
ATOM	901	C5	CYT	83	-3.395	-7.103	8.444	1.00	0.00
ATOM	902	C4	CYT	83	-2.628	-7.529	9.578	1.00	0.00
ATOM	903	N4	CYT	83	-3.228	-8.105	10.619	1.00	0.00
ATOM	904	N3	CYT	83	-1.300	-7.360	9.624	1.00	0.00
ATOM	905	C2	CYT	83	-0.628	-6.764	8.599	1.00	0.00
ATOM	906	O2	CYT	83	0.590	-6.623	8.663	1.00	0.00
ATOM	907	C3'	CYT	83	-1.559	-5.646	4.097	1.00	0.00
ATOM	908	C2'	CYT	83	-0.790	-6.518	5.088	1.00	0.00
ATOM	909	O3'	CYT	83	-1.052	-5.751	2.779	1.00	0.00
ATOM	910	P	THY	84	-1.282	-7.073	1.870	1.00	0.00
ATOM	911	OP1	THY	84	-2.634	-7.604	2.150	1.00	0.00
ATOM	912	OP2	THY	84	-0.896	-6.741	0.481	1.00	0.00
ATOM	913	O5'	THY	84	-0.215	-8.140	2.440	1.00	0.00
ATOM	914	C5'	THY	84	1.178	-7.957	2.272	1.00	0.00
ATOM	915	C4'	THY	84	1.937	-9.075	2.994	1.00	0.00
ATOM	916	O4'	THY	84	1.469	-9.154	4.331	1.00	0.00
ATOM	917	C1'	THY	84	1.234	-10.496	4.697	1.00	0.00
ATOM	918	N1	THY	84	0.163	-10.543	5.737	1.00	0.00
ATOM	919	C6	THY	84	-1.109	-10.103	5.439	1.00	0.00
ATOM	920	C5	THY	84	-2.098	-10.120	6.363	1.00	0.00
ATOM	921	C7	THY	84	-3.466	-9.662	5.889	1.00	0.00
ATOM	922	C4	THY	84	-1.862	-10.573	7.716	1.00	0.00
ATOM	923	O4	THY	84	-2.704	-10.620	8.605	1.00	0.00
ATOM	924	N3	THY	84	-0.558	-10.974	7.960	1.00	0.00
ATOM	925	C2	THY	84	0.476	-10.983	7.028	1.00	0.00
ATOM	926	O2	THY	84	1.595	-11.366	7.359	1.00	0.00
ATOM	927	C3'	THY	84	1.721	-10.458	2.354	1.00	0.00
ATOM	928	C2'	THY	84	0.810	-11.144	3.376	1.00	0.00
ATOM	929	O3'	THY	84	2.976	-11.100	2.175	1.00	0.00
ATOM	930	P	ADE	85	3.127	-12.534	1.437	1.00	0.00

(281)

特開2003-135087

559

560

ATOM	931	OP1	ADE	85	2.031	-12.694	0.457	1.00	0.00
ATOM	932	OP2	ADE	85	4.531	-12.696	0.993	1.00	0.00
ATOM	933	O5'	ADE	85	2.864	-13.550	2.652	1.00	0.00
ATOM	934	C5'	ADE	85	3.754	-13.613	3.746	1.00	0.00
ATOM	935	C4'	ADE	85	3.115	-14.384	4.901	1.00	0.00
ATOM	936	O4'	ADE	85	1.938	-13.767	5.384	1.00	0.00
ATOM	937	C1'	ADE	85	1.215	-14.758	6.076	1.00	0.00
ATOM	938	N9	ADE	85	-0.171	-14.322	6.333	1.00	0.00
ATOM	939	C8	ADE	85	-1.066	-13.775	5.447	1.00	0.00
ATOM	940	N7	ADE	85	-2.225	-13.484	5.966	1.00	0.00
ATOM	941	C5	ADE	85	-2.089	-13.868	7.294	1.00	0.00
ATOM	942	C6	ADE	85	-2.965	-13.819	8.392	1.00	0.00
ATOM	943	N6	ADE	85	-4.212	-13.360	8.279	1.00	0.00
ATOM	944	N1	ADE	85	-2.533	-14.270	9.585	1.00	0.00
ATOM	945	C2	ADE	85	-1.297	-14.751	9.678	1.00	0.00
ATOM	946	N3	ADE	85	-0.381	-14.865	8.721	1.00	0.00
ATOM	947	C4	ADE	85	-0.843	-14.387	7.533	1.00	0.00
ATOM	948	C3'	ADE	85	2.690	-15.814	4.532	1.00	0.00
ATOM	949	C2'	ADE	85	1.253	-15.890	5.059	1.00	0.00
ATOM	950	O3'	ADE	85	3.604	-16.685	5.171	1.00	0.00
ATOM	951	P	ADE	86	3.432	-18.278	5.162	1.00	0.00
ATOM	952	OP1	ADE	86	2.442	-18.648	4.130	1.00	0.00
ATOM	953	OP2	ADE	86	4.776	-18.903	5.133	1.00	0.00
ATOM	954	O5'	ADE	86	2.791	-18.562	6.605	1.00	0.00
ATOM	955	C5'	ADE	86	3.508	-18.247	7.782	1.00	0.00
ATOM	956	C4'	ADE	86	2.716	-18.670	9.019	1.00	0.00
ATOM	957	O4'	ADE	86	1.463	-18.004	9.043	1.00	0.00
ATOM	958	C1'	ADE	86	0.413	-18.935	9.201	1.00	0.00
ATOM	959	N9	ADE	86	-0.798	-18.429	8.515	1.00	0.00
ATOM	960	C8	ADE	86	-1.004	-18.225	7.172	1.00	0.00
ATOM	961	N7	ADE	86	-2.157	-17.688	6.876	1.00	0.00
ATOM	962	C5	ADE	86	-2.758	-17.510	8.117	1.00	0.00
ATOM	963	C6	ADE	86	-3.990	-16.956	8.520	1.00	0.00
ATOM	964	N6	ADE	86	-4.874	-16.456	7.654	1.00	0.00
ATOM	965	N1	ADE	86	-4.266	-16.884	9.836	1.00	0.00
ATOM	966	C2	ADE	86	-3.369	-17.332	10.706	1.00	0.00
ATOM	967	N3	ADE	86	-2.183	-17.884	10.456	1.00	0.00
ATOM	968	C4	ADE	86	-1.932	-17.944	9.122	1.00	0.00
ATOM	969	C3'	ADE	86	2.421	-20.174	9.025	1.00	0.00
ATOM	970	C2'	ADE	86	0.960	-20.220	8.585	1.00	0.00
ATOM	971	O3'	ADE	86	2.653	-20.664	10.332	1.00	0.00
ATOM	972	P	CYT	87	2.549	-22.224	10.714	1.00	0.00
ATOM	973	OP1	CYT	87	3.601	-22.535	11.714	1.00	0.00
ATOM	974	OP2	CYT	87	2.488	-23.017	9.464	1.00	0.00
ATOM	975	O5'	CYT	87	1.109	-22.269	11.434	1.00	0.00
ATOM	976	C5'	CYT	87	0.906	-21.610	12.672	1.00	0.00
ATOM	977	C4'	CYT	87	-0.580	-21.377	12.950	1.00	0.00
ATOM	978	O4'	CYT	87	-1.202	-20.782	11.830	1.00	0.00
ATOM	979	C1'	CYT	87	-2.586	-21.035	11.916	1.00	0.00
ATOM	980	N1	CYT	87	-3.229	-20.893	10.584	1.00	0.00

(282)

特開2003-135087

561				562					
ATOM	981	C6	CYT	87	-2.590	-21.339	9.453	1.00	0.00
ATOM	982	C5	CYT	87	-3.113	-21.140	8.220	1.00	0.00
ATOM	983	C4	CYT	87	-4.369	-20.449	8.152	1.00	0.00
ATOM	984	N4	CYT	87	-4.891	-20.122	6.971	1.00	0.00
ATOM	985	N3	CYT	87	-5.011	-20.067	9.263	1.00	0.00
ATOM	986	C2	CYT	87	-4.485	-20.298	10.497	1.00	0.00
ATOM	987	O2	CYT	87	-5.113	-19.970	11.500	1.00	0.00
ATOM	988	C3'	CYT	87	-1.377	-22.655	13.243	1.00	0.00
ATOM	989	C2'	CYT	87	-2.625	-22.484	12.376	1.00	0.00
ATOM	990	O3'	CYT	87	-1.660	-22.710	14.635	1.00	0.00
ATOM	991	P	CYT	88	-2.416	-23.961	15.326	1.00	0.00
ATOM	992	OP1	CYT	88	-2.180	-25.163	14.503	1.00	0.00
ATOM	993	OP2	CYT	88	-2.033	-24.007	16.753	1.00	0.00
ATOM	994	O5'	CYT	88	-3.981	-23.598	15.215	1.00	0.00
ATOM	995	C5'	CYT	88	-4.569	-22.571	15.991	1.00	0.00
ATOM	996	C4'	CYT	88	-6.007	-22.318	15.521	1.00	0.00
ATOM	997	O4'	CYT	88	-6.008	-21.967	14.153	1.00	0.00
ATOM	998	C1'	CYT	88	-7.237	-22.364	13.585	1.00	0.00
ATOM	999	N1	CYT	88	-7.075	-22.529	12.123	1.00	0.00
ATOM	1000	C6	CYT	88	-6.001	-23.232	11.648	1.00	0.00
ATOM	1001	C5	CYT	88	-5.804	-23.429	10.332	1.00	0.00
ATOM	1002	C4	CYT	88	-6.772	-22.843	9.447	1.00	0.00
ATOM	1003	N4	CYT	88	-6.655	-22.982	8.131	1.00	0.00
ATOM	1004	N3	CYT	88	-7.850	-22.198	9.914	1.00	0.00
ATOM	1005	C2	CYT	88	-8.050	-22.052	11.254	1.00	0.00
ATOM	1006	O2	CYT	88	-9.084	-21.533	11.668	1.00	0.00
ATOM	1007	C3'	CYT	88	-6.926	-23.548	15.635	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.459	-23.731	14.217	1.00	0.00
ATOM	1009	O3'	CYT	88	-7.947	-23.282	16.585	1.00	0.00
ATOM	1010	P	CYT	89	-9.128	-24.333	16.925	1.00	0.00
ATOM	1011	OP1	CYT	89	-8.672	-25.687	16.538	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.583	-24.082	18.309	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.312	-23.894	15.915	1.00	0.00
ATOM	1014	C5'	CYT	89	-10.985	-22.653	16.051	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.046	-22.486	14.954	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.434	-22.565	13.683	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.293	-23.203	12.762	1.00	0.00
ATOM	1018	N1	CYT	89	-11.456	-23.879	11.739	1.00	0.00
ATOM	1019	C6	CYT	89	-10.383	-24.621	12.152	1.00	0.00
ATOM	1020	C5	CYT	89	-9.514	-25.168	11.282	1.00	0.00
ATOM	1021	C4	CYT	89	-9.772	-24.947	9.889	1.00	0.00
ATOM	1022	N4	CYT	89	-8.937	-25.432	8.970	1.00	0.00
ATOM	1023	N3	CYT	89	-10.854	-24.265	9.479	1.00	0.00
ATOM	1024	C2	CYT	89	-11.727	-23.726	10.380	1.00	0.00
ATOM	1025	O2	CYT	89	-12.727	-23.132	9.987	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.126	-23.579	14.986	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.003	-24.244	13.618	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.401	-22.988	15.201	1.00	0.00
ATOM	1029	P	THY	90	-15.768	-23.853	15.284	1.00	0.00
ATOM	1030	OP1	THY	90	-16.732	-23.110	16.124	1.00	0.00

563					564				
ATOM	1031	OP2	THY	90	-15.419	-25.250	15.624	1.00	0.00
ATOM	1032	O5'	THY	90	-16.308	-23.831	13.763	1.00	0.00
ATOM	1033	C5'	THY	90	-16.729	-22.625	13.152	1.00	0.00
ATOM	1034	C4'	THY	90	-17.047	-22.851	11.669	1.00	0.00
ATOM	1035	O4'	THY	90	-15.918	-23.409	11.025	1.00	0.00
ATOM	1036	C1'	THY	90	-16.332	-24.371	10.080	1.00	0.00
ATOM	1037	N1	THY	90	-15.213	-25.324	9.873	1.00	0.00
ATOM	1038	C6	THY	90	-14.675	-25.980	10.952	1.00	0.00
ATOM	1039	C5	THY	90	-13.560	-26.735	10.835	1.00	0.00
ATOM	1040	C7	THY	90	-13.089	-27.440	12.093	1.00	0.00
ATOM	1041	C4	THY	90	-12.868	-26.864	9.571	1.00	0.00
ATOM	1042	O4	THY	90	-11.817	-27.474	9.403	1.00	0.00
ATOM	1043	N3	THY	90	-13.494	-26.215	8.513	1.00	0.00
ATOM	1044	C2	THY	90	-14.667	-25.478	8.599	1.00	0.00
ATOM	1045	O2	THY	90	-15.181	-25.016	7.584	1.00	0.00
ATOM	1046	C3'	THY	90	-18.212	-23.824	11.421	1.00	0.00
ATOM	1047	C2'	THY	90	-17.531	-25.025	10.765	1.00	0.00
ATOM	1048	O3'	THY	90	-19.151	-23.193	10.563	1.00	0.00
ATOM	1049	P	ADE	91	-20.591	-23.840	10.219	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.469	-22.760	9.716	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.025	-24.660	11.372	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.265	-24.830	8.993	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.073	-24.334	7.684	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.519	-25.428	6.767	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.255	-25.879	7.202	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.008	-27.082	6.513	1.00	0.00
ATOM	1057	N9	ADE	91	-16.900	-27.821	7.145	1.00	0.00
ATOM	1058	C8	ADE	91	-16.710	-28.082	8.475	1.00	0.00
ATOM	1059	N7	ADE	91	-15.582	-28.681	8.748	1.00	0.00
ATOM	1060	C5	ADE	91	-14.999	-28.856	7.496	1.00	0.00
ATOM	1061	C6	ADE	91	-13.778	-29.415	7.066	1.00	0.00
ATOM	1062	N6	ADE	91	-12.851	-29.874	7.911	1.00	0.00
ATOM	1063	N1	ADE	91	-13.531	-29.484	5.744	1.00	0.00
ATOM	1064	C2	ADE	91	-14.435	-29.006	4.892	1.00	0.00
ATOM	1065	N3	ADE	91	-15.591	-28.417	5.167	1.00	0.00
ATOM	1066	C4	ADE	91	-15.818	-28.372	6.506	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.377	-26.702	6.696	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.326	-27.822	6.694	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.181	-26.637	5.527	1.00	0.00
ATOM	1070	P	ADE	92	-22.099	-27.862	5.012	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.174	-27.309	4.158	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.444	-28.719	6.168	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.080	-28.676	4.067	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.496	-28.069	2.930	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.456	-29.000	2.302	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.436	-29.306	3.239	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.051	-30.655	3.075	1.00	0.00
ATOM	1078	N9	ADE	92	-17.388	-31.147	4.304	1.00	0.00
ATOM	1079	C8	ADE	92	-17.860	-31.108	5.592	1.00	0.00
ATOM	1080	N7	ADE	92	-17.027	-31.552	6.490	1.00	0.00

(284)

特開2003-135087

565

566

ATOM	1081	C5	ADE	92	-15.920	-31.926	5.740	1.00	0.00
ATOM	1082	C6	ADE	92	-14.672	-32.475	6.094	1.00	0.00
ATOM	1083	N6	ADE	92	-14.341	-32.719	7.364	1.00	0.00
ATOM	1084	N1	ADE	92	-13.785	-32.750	5.120	1.00	0.00
ATOM	1085	C2	ADE	92	-14.124	-32.493	3.859	1.00	0.00
ATOM	1086	N3	ADE	92	-15.257	-31.969	3.398	1.00	0.00
ATOM	1087	C4	ADE	92	-16.130	-31.698	4.405	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.053	-30.347	1.861	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.408	-31.317	2.854	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.676	-30.587	0.516	1.00	0.00
ATOM	1091	P	CYT	93	-20.217	-31.854	-0.322	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.516	-31.410	-1.702	1.00	0.00
ATOM	1093	OP2	CYT	93	-21.253	-32.551	0.472	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.912	-32.791	-0.365	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.803	-32.465	-1.182	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.688	-33.487	-0.949	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.346	-33.482	0.419	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.879	-34.758	0.793	1.00	0.00
ATOM	1099	N1	CYT	93	-16.085	-34.937	2.252	1.00	0.00
ATOM	1100	C6	CYT	93	-17.260	-34.534	2.834	1.00	0.00
ATOM	1101	C5	CYT	93	-17.475	-34.658	4.162	1.00	0.00
ATOM	1102	C4	CYT	93	-16.408	-35.221	4.941	1.00	0.00
ATOM	1103	N4	CYT	93	-16.496	-35.289	6.270	1.00	0.00
ATOM	1104	N3	CYT	93	-15.273	-35.639	4.363	1.00	0.00
ATOM	1105	C2	CYT	93	-15.082	-35.523	3.019	1.00	0.00
ATOM	1106	O2	CYT	93	-14.039	-35.930	2.511	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.122	-34.927	-1.255	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.772	-35.716	0.005	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.424	-35.442	-2.371	1.00	0.00

END

HEADER 000000

REMARK 0.00517 1.63435 0.02497 0.01716 2.40544 1.70652

0.00000

REMARK 2.56379 0.19215 0.45471 1.18973 0.72720

REMARK 0.00926 0.00394 0.00503 0.01722 0.00784

REMARK 127 125 2 0 0 0

0

REMARK 1378 305 460 273 340

REMARK 0.03051 0.14713 0.02954 0.03312 0.14713 0.07948

REMARK 4.88484 0.39752

REMARK 1 0 0 1 0 0

0

ATOM 1 N GLU 1 12.701 -10.625 25.174 1.00 0.00

ATOM 2 CA GLU 1 12.649 -12.096 25.134 1.00 0.00

(285)

特開2003-135087

567

568

ATOM	3	CB	GLU	1	13.728	-12.712	26.051	1.00	0.00
ATOM	4	CG	GLU	1	14.408	-13.937	25.418	1.00	0.00
ATOM	5	CD	GLU	1	13.421	-15.013	24.990	1.00	0.00
ATOM	6	OE1	GLU	1	13.160	-15.109	23.773	1.00	0.00
ATOM	7	OE2	GLU	1	12.873	-15.683	25.890	1.00	0.00
ATOM	8	C	GLU	1	11.208	-12.538	25.427	1.00	0.00
ATOM	9	O	GLU	1	10.285	-11.834	25.024	1.00	0.00
ATOM	10	N	LYS	2	11.009	-13.671	26.109	1.00	0.00
ATOM	11	CA	LYS	2	9.719	-14.244	26.450	1.00	0.00
ATOM	12	CB	LYS	2	8.872	-13.283	27.304	1.00	0.00
ATOM	13	CG	LYS	2	7.769	-14.044	28.056	1.00	0.00
ATOM	14	CD	LYS	2	6.851	-13.081	28.816	1.00	0.00
ATOM	15	CE	LYS	2	5.724	-13.869	29.496	1.00	0.00
ATOM	16	NZ	LYS	2	4.778	-12.981	30.199	1.00	0.00
ATOM	17	C	LYS	2	9.016	-14.735	25.181	1.00	0.00
ATOM	18	O	LYS	2	7.835	-14.463	24.970	1.00	0.00
ATOM	19	N	HIS	3	9.740	-15.484	24.338	1.00	0.00
ATOM	20	CA	HIS	3	9.172	-16.036	23.112	1.00	0.00
ATOM	21	CB	HIS	3	10.288	-16.462	22.149	1.00	0.00
ATOM	22	CG	HIS	3	11.037	-17.701	22.566	1.00	0.00
ATOM	23	ND1	HIS	3	12.159	-17.659	23.376	1.00	0.00
ATOM	24	CE1	HIS	3	12.575	-18.924	23.553	1.00	0.00
ATOM	25	NE2	HIS	3	11.809	-19.815	22.914	1.00	0.00
ATOM	26	CD2	HIS	3	10.840	-19.033	22.290	1.00	0.00
ATOM	27	C	HIS	3	8.201	-17.191	23.401	1.00	0.00
ATOM	28	O	HIS	3	7.568	-17.707	22.481	1.00	0.00
ATOM	29	N	ARG	4	8.076	-17.606	24.671	1.00	0.00
ATOM	30	CA	ARG	4	7.201	-18.683	25.113	1.00	0.00
ATOM	31	CB	ARG	4	7.690	-19.229	26.470	1.00	0.00
ATOM	32	CG	ARG	4	9.206	-19.458	26.581	1.00	0.00
ATOM	33	CD	ARG	4	9.803	-20.295	25.447	1.00	0.00
ATOM	34	NE	ARG	4	9.280	-21.665	25.419	1.00	0.00
ATOM	35	CZ	ARG	4	9.677	-22.603	24.541	1.00	0.00
ATOM	36	NH1	ARG	4	9.168	-23.839	24.616	1.00	0.00
ATOM	37	NH2	ARG	4	10.579	-22.315	23.592	1.00	0.00
ATOM	38	C	ARG	4	5.752	-18.184	25.197	1.00	0.00
ATOM	39	O	ARG	4	5.131	-18.243	26.256	1.00	0.00
ATOM	40	N	ALA	5	5.216	-17.690	24.075	1.00	0.00
ATOM	41	CA	ALA	5	3.861	-17.166	23.964	1.00	0.00
ATOM	42	CB	ALA	5	3.894	-15.642	24.122	1.00	0.00
ATOM	43	C	ALA	5	3.268	-17.599	22.625	1.00	0.00
ATOM	44	O	ALA	5	2.779	-16.776	21.853	1.00	0.00
ATOM	45	N	ARG	6	3.327	-18.910	22.358	1.00	0.00
ATOM	46	CA	ARG	6	2.832	-19.539	21.140	1.00	0.00
ATOM	47	CB	ARG	6	1.289	-19.576	21.159	1.00	0.00
ATOM	48	CG	ARG	6	0.618	-20.520	20.141	1.00	0.00
ATOM	49	CD	ARG	6	1.079	-21.976	20.288	1.00	0.00
ATOM	50	NE	ARG	6	0.189	-22.920	19.588	1.00	0.00
ATOM	51	CZ	ARG	6	0.411	-24.243	19.509	1.00	0.00
ATOM	52	NH1	ARG	6	1.536	-24.777	20.003	1.00	0.00

569

570

ATOM	53	NH2	ARG	6	-0.503	-25.032	18.939	1.00	0.00
ATOM	54	C	ARG	6	3.425	-18.867	19.896	1.00	0.00
ATOM	55	O	ARG	6	2.705	-18.586	18.939	1.00	0.00
ATOM	56	N	LYS	7	4.744	-18.618	19.902	1.00	0.00
ATOM	57	CA	LYS	7	5.410	-18.011	18.758	1.00	0.00
ATOM	58	CB	LYS	7	6.834	-17.530	19.094	1.00	0.00
ATOM	59	CG	LYS	7	7.633	-17.241	17.806	1.00	0.00
ATOM	60	CD	LYS	7	8.878	-16.364	18.013	1.00	0.00
ATOM	61	CE	LYS	7	8.606	-14.850	18.056	1.00	0.00
ATOM	62	NZ	LYS	7	7.997	-14.354	16.807	1.00	0.00
ATOM	63	C	LYS	7	5.388	-19.021	17.613	1.00	0.00
ATOM	64	O	LYS	7	6.100	-20.024	17.644	1.00	0.00
ATOM	65	N	ARG	8	4.560	-18.736	16.609	1.00	0.00
ATOM	66	CA	ARG	8	4.399	-19.553	15.419	1.00	0.00
ATOM	67	CB	ARG	8	3.118	-19.124	14.699	1.00	0.00
ATOM	68	CG	ARG	8	3.085	-17.640	14.318	1.00	0.00
ATOM	69	CD	ARG	8	1.844	-17.332	13.479	1.00	0.00
ATOM	70	NE	ARG	8	0.614	-17.437	14.273	1.00	0.00
ATOM	71	CZ	ARG	8	-0.615	-17.249	13.772	1.00	0.00
ATOM	72	NH1	ARG	8	-1.690	-17.304	14.566	1.00	0.00
ATOM	73	NH2	ARG	8	-0.765	-16.996	12.471	1.00	0.00
ATOM	74	C	ARG	8	5.632	-19.431	14.519	1.00	0.00
ATOM	75	O	ARG	8	6.506	-18.604	14.787	1.00	0.00
ATOM	76	N	GLN	9	5.710	-20.244	13.455	1.00	0.00
ATOM	77	CA	GLN	9	6.841	-20.206	12.534	1.00	0.00
ATOM	78	CB	GLN	9	7.844	-21.325	12.849	1.00	0.00
ATOM	79	CG	GLN	9	9.178	-21.069	12.123	1.00	0.00
ATOM	80	CD	GLN	9	9.686	-22.310	11.400	1.00	0.00
ATOM	81	OE1	GLN	9	10.206	-23.223	12.035	1.00	0.00
ATOM	82	NE2	GLN	9	9.536	-22.345	10.074	1.00	0.00
ATOM	83	C	GLN	9	6.367	-20.285	11.086	1.00	0.00
ATOM	84	O	GLN	9	5.918	-21.335	10.622	1.00	0.00
ATOM	85	N	ALA	10	6.501	-19.166	10.367	1.00	0.00
ATOM	86	CA	ALA	10	6.137	-19.072	8.965	1.00	0.00
ATOM	87	CB	ALA	10	6.286	-17.622	8.494	1.00	0.00
ATOM	88	C	ALA	10	7.000	-20.006	8.124	1.00	0.00
ATOM	89	O	ALA	10	8.063	-20.448	8.563	1.00	0.00
ATOM	90	N	TRP	11	6.534	-20.317	6.918	1.00	0.00
ATOM	91	CA	TRP	11	7.243	-21.205	6.017	1.00	0.00
ATOM	92	CB	TRP	11	6.277	-21.720	4.955	1.00	0.00
ATOM	93	CG	TRP	11	5.182	-22.643	5.412	1.00	0.00
ATOM	94	CD1	TRP	11	4.262	-22.411	6.379	1.00	0.00
ATOM	95	NE1	TRP	11	3.426	-23.501	6.510	1.00	0.00
ATOM	96	CE2	TRP	11	3.771	-24.501	5.624	1.00	0.00
ATOM	97	CZ2	TRP	11	3.255	-25.780	5.363	1.00	0.00
ATOM	98	CH2	TRP	11	3.853	-26.577	4.379	1.00	0.00
ATOM	99	CZ3	TRP	11	4.948	-26.083	3.659	1.00	0.00
ATOM	100	CE3	TRP	11	5.450	-24.798	3.916	1.00	0.00
ATOM	101	CD2	TRP	11	4.885	-23.976	4.910	1.00	0.00
ATOM	102	C	TRP	11	8.418	-20.468	5.371	1.00	0.00

571					572				
ATOM	103	O	TRP	11	8.313	-19.284	5.054	1.00	0.00
ATOM	104	N	LEU	12	9.528	-21.186	5.184	1.00	0.00
ATOM	105	CA	LEU	12	10.762	-20.704	4.574	1.00	0.00
ATOM	106	CB	LEU	12	11.921	-20.841	5.576	1.00	0.00
ATOM	107	CG	LEU	12	11.655	-20.180	6.942	1.00	0.00
ATOM	108	CD1	LEU	12	12.825	-20.483	7.884	1.00	0.00
ATOM	109	CD2	LEU	12	11.486	-18.661	6.818	1.00	0.00
ATOM	110	C	LEU	12	11.018	-21.551	3.327	1.00	0.00
ATOM	111	O	LEU	12	10.216	-22.421	3.002	1.00	0.00
ATOM	112	N	TRP	13	12.136	-21.327	2.623	1.00	0.00
ATOM	113	CA	TRP	13	12.476	-22.103	1.426	1.00	0.00
ATOM	114	CB	TRP	13	13.840	-21.754	0.822	1.00	0.00
ATOM	115	CG	TRP	13	14.733	-20.975	1.710	1.00	0.00
ATOM	116	CD1	TRP	13	14.759	-19.639	1.683	1.00	0.00
ATOM	117	NE1	TRP	13	15.663	-19.161	2.608	1.00	0.00
ATOM	118	CE2	TRP	13	16.265	-20.206	3.287	1.00	0.00
ATOM	119	CZ2	TRP	13	17.229	-20.260	4.306	1.00	0.00
ATOM	120	CH2	TRP	13	17.638	-21.511	4.798	1.00	0.00
ATOM	121	CZ3	TRP	13	17.082	-22.689	4.267	1.00	0.00
ATOM	122	CE3	TRP	13	16.117	-22.627	3.246	1.00	0.00
ATOM	123	CD2	TRP	13	15.686	-21.386	2.731	1.00	0.00
ATOM	124	C	TRP	13	12.501	-23.585	1.717	1.00	0.00
ATOM	125	O	TRP	13	12.206	-24.363	0.828	1.00	0.00
ATOM	126	N	GLU	14	12.863	-24.000	2.928	1.00	0.00
ATOM	127	CA	GLU	14	12.881	-25.426	3.192	1.00	0.00
ATOM	128	CB	GLU	14	13.446	-25.716	4.593	1.00	0.00
ATOM	129	CG	GLU	14	13.690	-27.214	4.848	1.00	0.00
ATOM	130	CD	GLU	14	12.421	-27.987	5.208	1.00	0.00
ATOM	131	OE1	GLU	14	11.914	-28.712	4.324	1.00	0.00
ATOM	132	OE2	GLU	14	11.985	-27.849	6.372	1.00	0.00
ATOM	133	C	GLU	14	11.481	-25.989	2.964	1.00	0.00
ATOM	134	O	GLU	14	11.278	-26.781	2.044	1.00	0.00
ATOM	135	N	GLU	15	10.517	-25.565	3.780	1.00	0.00
ATOM	136	CA	GLU	15	9.162	-26.051	3.662	1.00	0.00
ATOM	137	CB	GLU	15	8.328	-25.569	4.854	1.00	0.00
ATOM	138	CG	GLU	15	8.997	-25.795	6.217	1.00	0.00
ATOM	139	CD	GLU	15	9.641	-24.533	6.781	1.00	0.00
ATOM	140	OE1	GLU	15	10.261	-23.798	5.982	1.00	0.00
ATOM	141	OE2	GLU	15	9.467	-24.304	8.002	1.00	0.00
ATOM	142	C	GLU	15	8.530	-25.698	2.305	1.00	0.00
ATOM	143	O	GLU	15	7.943	-26.560	1.660	1.00	0.00
ATOM	144	N	ASP	16	8.635	-24.443	1.863	1.00	0.00
ATOM	145	CA	ASP	16	8.056	-23.966	0.610	1.00	0.00
ATOM	146	CB	ASP	16	8.197	-22.443	0.486	1.00	0.00
ATOM	147	CG	ASP	16	7.315	-21.681	1.459	1.00	0.00
ATOM	148	OD1	ASP	16	6.170	-22.132	1.671	1.00	0.00
ATOM	149	OD2	ASP	16	7.764	-20.619	1.939	1.00	0.00
ATOM	150	C	ASP	16	8.665	-24.606	-0.635	1.00	0.00
ATOM	151	O	ASP	16	7.928	-25.040	-1.519	1.00	0.00
ATOM	152	N	LYS	17	9.998	-24.649	-0.737	1.00	0.00

(288)

特開2003-135087

573

574

ATOM	153	CA	LYS	17	10.656	-25.213	-1.907	1.00	0.00
ATOM	154	CB	LYS	17	12.158	-24.860	-1.915	1.00	0.00
ATOM	155	CG	LYS	17	12.772	-25.078	-3.305	1.00	0.00
ATOM	156	CD	LYS	17	14.306	-25.019	-3.274	1.00	0.00
ATOM	157	CE	LYS	17	14.833	-23.653	-2.817	1.00	0.00
ATOM	158	NZ	LYS	17	16.306	-23.590	-2.871	1.00	0.00
ATOM	159	C	LYS	17	10.328	-26.710	-1.959	1.00	0.00
ATOM	160	O	LYS	17	10.009	-27.243	-3.025	1.00	0.00
ATOM	161	N	ASN	18	10.362	-27.376	-0.794	1.00	0.00
ATOM	162	CA	ASN	18	10.007	-28.782	-0.670	1.00	0.00
ATOM	163	CB	ASN	18	10.204	-29.216	0.789	1.00	0.00
ATOM	164	CG	ASN	18	9.869	-30.676	1.056	1.00	0.00
ATOM	165	OD1	ASN	18	9.687	-31.457	0.129	1.00	0.00
ATOM	166	ND2	ASN	18	9.803	-31.042	2.336	1.00	0.00
ATOM	167	C	ASN	18	8.562	-28.979	-1.149	1.00	0.00
ATOM	168	O	ASN	18	8.290	-29.873	-1.948	1.00	0.00
ATOM	169	N	LEU	19	7.634	-28.135	-0.682	1.00	0.00
ATOM	170	CA	LEU	19	6.225	-28.188	-1.058	1.00	0.00
ATOM	171	CB	LEU	19	5.417	-27.135	-0.287	1.00	0.00
ATOM	172	CG	LEU	19	3.903	-27.189	-0.548	1.00	0.00
ATOM	173	CD1	LEU	19	3.297	-28.555	-0.208	1.00	0.00
ATOM	174	CD2	LEU	19	3.213	-26.112	0.298	1.00	0.00
ATOM	175	C	LEU	19	6.063	-28.026	-2.564	1.00	0.00
ATOM	176	O	LEU	19	5.274	-28.750	-3.166	1.00	0.00
ATOM	177	N	ARG	20	6.805	-27.098	-3.180	1.00	0.00
ATOM	178	CA	ARG	20	6.735	-26.892	-4.620	1.00	0.00
ATOM	179	CB	ARG	20	7.649	-25.735	-5.063	1.00	0.00
ATOM	180	CG	ARG	20	7.044	-24.892	-6.198	1.00	0.00
ATOM	181	CD	ARG	20	6.565	-25.718	-7.401	1.00	0.00
ATOM	182	NE	ARG	20	5.996	-24.855	-8.447	1.00	0.00
ATOM	183	CZ	ARG	20	5.053	-25.224	-9.334	1.00	0.00
ATOM	184	NH1	ARG	20	4.575	-26.478	-9.355	1.00	0.00
ATOM	185	NH2	ARG	20	4.584	-24.327	-10.210	1.00	0.00
ATOM	186	C	ARG	20	7.089	-28.208	-5.320	1.00	0.00
ATOM	187	O	ARG	20	6.368	-28.648	-6.218	1.00	0.00
ATOM	188	N	SER	21	8.187	-28.847	-4.887	1.00	0.00
ATOM	189	CA	SER	21	8.608	-30.132	-5.432	1.00	0.00
ATOM	190	CB	SER	21	9.913	-30.597	-4.773	1.00	0.00
ATOM	191	OG	SER	21	10.454	-31.704	-5.469	1.00	0.00
ATOM	192	C	SER	21	7.473	-31.146	-5.252	1.00	0.00
ATOM	193	O	SER	21	7.132	-31.861	-6.190	1.00	0.00
ATOM	194	N	GLY	22	6.876	-31.186	-4.055	1.00	0.00
ATOM	195	CA	GLY	22	5.766	-32.060	-3.712	1.00	0.00
ATOM	196	C	GLY	22	4.608	-31.928	-4.696	1.00	0.00
ATOM	197	O	GLY	22	4.183	-32.919	-5.282	1.00	0.00
ATOM	198	N	VAL	23	4.099	-30.709	-4.881	1.00	0.00
ATOM	199	CA	VAL	23	2.995	-30.434	-5.787	1.00	0.00
ATOM	200	CB	VAL	23	2.553	-28.966	-5.655	1.00	0.00
ATOM	201	CG1	VAL	23	1.511	-28.615	-6.724	1.00	0.00
ATOM	202	CG2	VAL	23	1.933	-28.723	-4.271	1.00	0.00

575					576				
ATOM	203	C	VAL	23	3.367	-30.809	-7.223	1.00	0.00
ATOM	204	O	VAL	23	2.560	-31.413	-7.926	1.00	0.00
ATOM	205	N	ARG	24	4.577	-30.461	-7.673	1.00	0.00
ATOM	206	CA	ARG	24	5.017	-30.773	-9.027	1.00	0.00
ATOM	207	CB	ARG	24	6.368	-30.096	-9.298	1.00	0.00
ATOM	208	CG	ARG	24	6.754	-30.206	-10.780	1.00	0.00
ATOM	209	CD	ARG	24	8.058	-29.458	-11.073	1.00	0.00
ATOM	210	NE	ARG	24	8.390	-29.532	-12.504	1.00	0.00
ATOM	211	CZ	ARG	24	9.473	-28.981	-13.077	1.00	0.00
ATOM	212	NH1	ARG	24	10.365	-28.311	-12.337	1.00	0.00
ATOM	213	NH2	ARG	24	9.659	-29.102	-14.398	1.00	0.00
ATOM	214	C	ARG	24	5.087	-32.287	-9.268	1.00	0.00
ATOM	215	O	ARG	24	4.680	-32.765	-10.326	1.00	0.00
ATOM	216	N	LYS	25	5.618	-33.034	-8.299	1.00	0.00
ATOM	217	CA	LYS	25	5.803	-34.476	-8.370	1.00	0.00
ATOM	218	CB	LYS	25	6.788	-34.905	-7.268	1.00	0.00
ATOM	219	CG	LYS	25	8.233	-34.442	-7.507	1.00	0.00
ATOM	220	CD	LYS	25	8.961	-35.349	-8.506	1.00	0.00
ATOM	221	CE	LYS	25	10.431	-34.928	-8.622	1.00	0.00
ATOM	222	NZ	LYS	25	11.178	-35.802	-9.547	1.00	0.00
ATOM	223	C	LYS	25	4.518	-35.287	-8.201	1.00	0.00
ATOM	224	O	LYS	25	4.332	-36.279	-8.903	1.00	0.00
ATOM	225	N	TYR	26	3.668	-34.913	-7.236	1.00	0.00
ATOM	226	CA	TYR	26	2.476	-35.669	-6.865	1.00	0.00
ATOM	227	CB	TYR	26	2.629	-36.036	-5.383	1.00	0.00
ATOM	228	CG	TYR	26	3.965	-36.701	-5.098	1.00	0.00
ATOM	229	CD1	TYR	26	4.284	-37.925	-5.718	1.00	0.00
ATOM	230	CE1	TYR	26	5.524	-38.540	-5.478	1.00	0.00
ATOM	231	CZ	TYR	26	6.452	-37.933	-4.616	1.00	0.00
ATOM	232	OH	TYR	26	7.658	-38.524	-4.380	1.00	0.00
ATOM	233	CE2	TYR	26	6.137	-36.714	-3.996	1.00	0.00
ATOM	234	CD2	TYR	26	4.898	-36.097	-4.235	1.00	0.00
ATOM	235	C	TYR	26	1.124	-35.028	-7.183	1.00	0.00
ATOM	236	O	TYR	26	0.106	-35.708	-7.036	1.00	0.00
ATOM	237	N	GLY	27	1.097	-33.767	-7.628	1.00	0.00
ATOM	238	CA	GLY	27	-0.122	-33.060	-8.001	1.00	0.00
ATOM	239	C	GLY	27	-0.738	-32.275	-6.844	1.00	0.00
ATOM	240	O	GLY	27	-0.697	-32.710	-5.693	1.00	0.00
ATOM	241	N	GLU	28	-1.326	-31.115	-7.162	1.00	0.00
ATOM	242	CA	GLU	28	-1.982	-30.240	-6.198	1.00	0.00
ATOM	243	CB	GLU	28	-2.340	-28.907	-6.883	1.00	0.00
ATOM	244	CG	GLU	28	-2.704	-27.811	-5.873	1.00	0.00
ATOM	245	CD	GLU	28	-3.057	-26.488	-6.550	1.00	0.00
ATOM	246	OE1	GLU	28	-2.178	-25.926	-7.242	1.00	0.00
ATOM	247	OE2	GLU	28	-4.196	-26.013	-6.354	1.00	0.00
ATOM	248	C	GLU	28	-3.225	-30.941	-5.639	1.00	0.00
ATOM	249	O	GLU	28	-3.881	-31.697	-6.353	1.00	0.00
ATOM	250	N	GLY	29	-3.543	-30.690	-4.365	1.00	0.00
ATOM	251	CA	GLY	29	-4.697	-31.275	-3.697	1.00	0.00
ATOM	252	C	GLY	29	-4.459	-32.729	-3.293	1.00	0.00

577					578				
ATOM	253	O	GLY	29	-5.351	-33.564	-3.421	1.00	0.00
ATOM	254	N	ASN	30	-3.252	-33.027	-2.795	1.00	0.00
ATOM	255	CA	ASN	30	-2.840	-34.350	-2.337	1.00	0.00
ATOM	256	CB	ASN	30	-2.224	-35.174	-3.482	1.00	0.00
ATOM	257	CG	ASN	30	-3.133	-35.363	-4.691	1.00	0.00
ATOM	258	OD1	ASN	30	-3.874	-36.339	-4.772	1.00	0.00
ATOM	259	ND2	ASN	30	-3.038	-34.456	-5.661	1.00	0.00
ATOM	260	C	ASN	30	-1.818	-34.118	-1.223	1.00	0.00
ATOM	261	O	ASN	30	-0.683	-34.583	-1.292	1.00	0.00
ATOM	262	N	TRP	31	-2.213	-33.356	-0.204	1.00	0.00
ATOM	263	CA	TRP	31	-1.342	-32.976	0.900	1.00	0.00
ATOM	264	CB	TRP	31	-1.972	-31.839	1.714	1.00	0.00
ATOM	265	CG	TRP	31	-2.778	-30.916	0.858	1.00	0.00
ATOM	266	CD1	TRP	31	-4.127	-30.859	0.811	1.00	0.00
ATOM	267	NE1	TRP	31	-4.519	-29.915	-0.115	1.00	0.00
ATOM	268	CE2	TRP	31	-3.431	-29.316	-0.711	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.308	-28.324	-1.693	1.00	0.00
ATOM	270	CH2	TRP	31	-2.026	-27.928	-2.098	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.887	-28.520	-1.527	1.00	0.00
ATOM	272	CE3	TRP	31	-1.025	-29.515	-0.543	1.00	0.00
ATOM	273	CD2	TRP	31	-2.300	-29.937	-0.109	1.00	0.00
ATOM	274	C	TRP	31	-0.894	-34.176	1.728	1.00	0.00
ATOM	275	O	TRP	31	0.221	-34.172	2.237	1.00	0.00
ATOM	276	N	SER	32	-1.732	-35.210	1.848	1.00	0.00
ATOM	277	CA	SER	32	-1.391	-36.421	2.584	1.00	0.00
ATOM	278	CB	SER	32	-2.634	-37.301	2.749	1.00	0.00
ATOM	279	OG	SER	32	-2.327	-38.484	3.458	1.00	0.00
ATOM	280	C	SER	32	-0.277	-37.139	1.824	1.00	0.00
ATOM	281	O	SER	32	0.760	-37.472	2.389	1.00	0.00
ATOM	282	N	LYS	33	-0.504	-37.359	0.525	1.00	0.00
ATOM	283	CA	LYS	33	0.426	-37.997	-0.394	1.00	0.00
ATOM	284	CB	LYS	33	-0.204	-37.899	-1.791	1.00	0.00
ATOM	285	CG	LYS	33	0.459	-38.682	-2.927	1.00	0.00
ATOM	286	CD	LYS	33	-0.327	-38.358	-4.209	1.00	0.00
ATOM	287	CE	LYS	33	0.237	-39.047	-5.455	1.00	0.00
ATOM	288	NZ	LYS	33	-0.358	-38.482	-6.684	1.00	0.00
ATOM	289	C	LYS	33	1.778	-37.279	-0.293	1.00	0.00
ATOM	290	O	LYS	33	2.798	-37.900	0.002	1.00	0.00
ATOM	291	N	ILE	34	1.768	-35.960	-0.516	1.00	0.00
ATOM	292	CA	ILE	34	2.945	-35.107	-0.449	1.00	0.00
ATOM	293	CB	ILE	34	2.554	-33.653	-0.784	1.00	0.00
ATOM	294	CG2	ILE	34	3.703	-32.691	-0.456	1.00	0.00
ATOM	295	CG1	ILE	34	2.186	-33.541	-2.276	1.00	0.00
ATOM	296	CD1	ILE	34	1.441	-32.244	-2.614	1.00	0.00
ATOM	297	C	ILE	34	3.631	-35.239	0.915	1.00	0.00
ATOM	298	O	ILE	34	4.838	-35.449	0.959	1.00	0.00
ATOM	299	N	LEU	35	2.878	-35.124	2.016	1.00	0.00
ATOM	300	CA	LEU	35	3.392	-35.225	3.379	1.00	0.00
ATOM	301	CB	LEU	35	2.257	-34.943	4.376	1.00	0.00
ATOM	302	CG	LEU	35	2.653	-35.010	5.861	1.00	0.00

579				580				
ATOM	303	CD1 LEU	35	3.779	-34.029	6.209	1.00	0.00
ATOM	304	CD2 LEU	35	1.422	-34.678	6.713	1.00	0.00
ATOM	305	C LEU	35	4.065	-36.579	3.635	1.00	0.00
ATOM	306	O LEU	35	5.058	-36.650	4.357	1.00	0.00
ATOM	307	N LEU	36	3.540	-37.661	3.049	1.00	0.00
ATOM	308	CA LEU	36	4.111	-38.989	3.220	1.00	0.00
ATOM	309	CB LEU	36	3.118	-40.065	2.758	1.00	0.00
ATOM	310	CG LEU	36	1.919	-40.216	3.712	1.00	0.00
ATOM	311	CD1 LEU	36	0.773	-40.932	2.990	1.00	0.00
ATOM	312	CD2 LEU	36	2.295	-41.008	4.971	1.00	0.00
ATOM	313	C LEU	36	5.441	-39.088	2.474	1.00	0.00
ATOM	314	O LEU	36	6.437	-39.534	3.046	1.00	0.00
ATOM	315	N HIS	37	5.465	-38.674	1.202	1.00	0.00
ATOM	316	CA HIS	37	6.673	-38.713	0.387	1.00	0.00
ATOM	317	CB HIS	37	6.349	-38.313	-1.056	1.00	0.00
ATOM	318	CG HIS	37	5.384	-39.236	-1.753	1.00	0.00
ATOM	319	ND1 HIS	37	5.609	-40.597	-1.897	1.00	0.00
ATOM	320	CE1 HIS	37	4.557	-41.104	-2.564	1.00	0.00
ATOM	321	NE2 HIS	37	3.645	-40.183	-2.877	1.00	0.00
ATOM	322	CD2 HIS	37	4.175	-39.005	-2.361	1.00	0.00
ATOM	323	C HIS	37	7.748	-37.792	0.966	1.00	0.00
ATOM	324	O HIS	37	8.844	-38.242	1.294	1.00	0.00
ATOM	325	N TYR	38	7.424	-36.505	1.093	1.00	0.00
ATOM	326	CA TYR	38	8.288	-35.461	1.613	1.00	0.00
ATOM	327	CB TYR	38	8.184	-34.219	0.722	1.00	0.00
ATOM	328	CG TYR	38	8.846	-34.280	-0.641	1.00	0.00
ATOM	329	CD1 TYR	38	8.067	-34.184	-1.808	1.00	0.00
ATOM	330	CE1 TYR	38	8.682	-34.216	-3.072	1.00	0.00
ATOM	331	CZ TYR	38	10.076	-34.343	-3.172	1.00	0.00
ATOM	332	OH TYR	38	10.660	-34.366	-4.405	1.00	0.00
ATOM	333	CE2 TYR	38	10.858	-34.442	-2.008	1.00	0.00
ATOM	334	CD2 TYR	38	10.244	-34.410	-0.744	1.00	0.00
ATOM	335	C TYR	38	7.813	-35.058	3.005	1.00	0.00
ATOM	336	O TYR	38	6.672	-34.636	3.161	1.00	0.00
ATOM	337	N LYS	39	8.684	-35.157	4.010	1.00	0.00
ATOM	338	CA LYS	39	8.349	-34.732	5.363	1.00	0.00
ATOM	339	CB LYS	39	9.108	-35.577	6.397	1.00	0.00
ATOM	340	CG LYS	39	8.355	-36.871	6.757	1.00	0.00
ATOM	341	CD LYS	39	8.063	-37.823	5.584	1.00	0.00
ATOM	342	CE LYS	39	9.329	-38.500	5.047	1.00	0.00
ATOM	343	NZ LYS	39	9.049	-39.285	3.831	1.00	0.00
ATOM	344	C LYS	39	8.676	-33.237	5.451	1.00	0.00
ATOM	345	O LYS	39	9.529	-32.752	4.706	1.00	0.00
ATOM	346	N PHE	40	7.990	-32.512	6.341	1.00	0.00
ATOM	347	CA PHE	40	8.165	-31.076	6.527	1.00	0.00
ATOM	348	CB PHE	40	6.927	-30.314	6.034	1.00	0.00
ATOM	349	CG PHE	40	6.633	-30.476	4.559	1.00	0.00
ATOM	350	CD1 PHE	40	6.010	-31.636	4.066	1.00	0.00
ATOM	351	CE1 PHE	40	5.752	-31.769	2.692	1.00	0.00
ATOM	352	CZ PHE	40	6.113	-30.742	1.805	1.00	0.00

581				582			
ATOM	353	CE2 PHE	40	6.731	-29.587	2.302	1.00 0.00
ATOM	354	CD2 PHE	40	6.992	-29.450	3.670	1.00 0.00
ATOM	355	C PHE	40	8.393	-30.739	7.992	1.00 0.00
ATOM	356	O PHE	40	8.170	-31.562	8.881	1.00 0.00
ATOM	357	N ASN	41	8.821	-29.497	8.221	1.00 0.00
ATOM	358	CA ASN	41	9.087	-28.932	9.529	1.00 0.00
ATOM	359	CB ASN	41	9.886	-27.642	9.324	1.00 0.00
ATOM	360	CG ASN	41	10.078	-26.833	10.599	1.00 0.00
ATOM	361	OD1 ASN	41	10.117	-27.377	11.702	1.00 0.00
ATOM	362	ND2 ASN	41	10.175	-25.517	10.436	1.00 0.00
ATOM	363	C ASN	41	7.775	-28.699	10.284	1.00 0.00
ATOM	364	O ASN	41	7.285	-27.575	10.376	1.00 0.00
ATOM	365	N ASN	42	7.224	-29.783	10.842	1.00 0.00
ATOM	366	CA ASN	42	6.010	-29.796	11.649	1.00 0.00
ATOM	367	CB ASN	42	6.280	-29.097	12.995	1.00 0.00
ATOM	368	CG ASN	42	7.465	-29.705	13.742	1.00 0.00
ATOM	369	OD1 ASN	42	7.293	-30.640	14.518	1.00 0.00
ATOM	370	ND2 ASN	42	8.675	-29.183	13.524	1.00 0.00
ATOM	371	C ASN	42	4.802	-29.190	10.927	1.00 0.00
ATOM	372	O ASN	42	4.165	-28.281	11.457	1.00 0.00
ATOM	373	N ARG	43	4.479	-29.694	9.728	1.00 0.00
ATOM	374	CA ARG	43	3.350	-29.222	8.930	1.00 0.00
ATOM	375	CB ARG	43	3.839	-28.637	7.601	1.00 0.00
ATOM	376	CG ARG	43	5.006	-27.649	7.706	1.00 0.00
ATOM	377	CD ARG	43	4.666	-26.374	8.485	1.00 0.00
ATOM	378	NE ARG	43	5.755	-25.404	8.325	1.00 0.00
ATOM	379	CZ ARG	43	5.849	-24.213	8.946	1.00 0.00
ATOM	380	NH1 ARG	43	6.972	-23.495	8.860	1.00 0.00
ATOM	381	NH2 ARG	43	4.833	-23.717	9.665	1.00 0.00
ATOM	382	C ARG	43	2.375	-30.376	8.674	1.00 0.00
ATOM	383	O ARG	43	2.796	-31.468	8.295	1.00 0.00
ATOM	384	N THR	44	1.077	-30.126	8.879	1.00 0.00
ATOM	385	CA THR	44	-0.016	-31.073	8.694	1.00 0.00
ATOM	386	CB THR	44	-1.066	-30.795	9.782	1.00 0.00
ATOM	387	CG2 THR	44	-0.474	-30.882	11.194	1.00 0.00
ATOM	388	OG1 THR	44	-1.614	-29.505	9.571	1.00 0.00
ATOM	389	C THR	44	-0.677	-30.865	7.327	1.00 0.00
ATOM	390	O THR	44	-0.296	-29.962	6.586	1.00 0.00
ATOM	391	N SER	45	-1.703	-31.671	7.016	1.00 0.00
ATOM	392	CA SER	45	-2.484	-31.536	5.789	1.00 0.00
ATOM	393	CB SER	45	-3.632	-32.559	5.794	1.00 0.00
ATOM	394	OG SER	45	-4.543	-32.302	4.745	1.00 0.00
ATOM	395	C SER	45	-3.026	-30.104	5.718	1.00 0.00
ATOM	396	O SER	45	-2.912	-29.441	4.686	1.00 0.00
ATOM	397	N VAL	46	-3.595	-29.629	6.836	1.00 0.00
ATOM	398	CA VAL	46	-4.140	-28.286	6.973	1.00 0.00
ATOM	399	CB VAL	46	-4.718	-28.075	8.387	1.00 0.00
ATOM	400	CG1 VAL	46	-5.209	-26.633	8.585	1.00 0.00
ATOM	401	CG2 VAL	46	-5.896	-29.019	8.653	1.00 0.00
ATOM	402	C VAL	46	-3.059	-27.252	6.658	1.00 0.00

583

584

ATOM	403	O	VAL	46	-3.311	-26.337	5.879	1.00	0.00
ATOM	404	N	MET	47	-1.870	-27.389	7.259	1.00	0.00
ATOM	405	CA	MET	47	-0.781	-26.445	7.029	1.00	0.00
ATOM	406	CB	MET	47	0.405	-26.752	7.949	1.00	0.00
ATOM	407	CG	MET	47	0.085	-26.560	9.433	1.00	0.00
ATOM	408	SD	MET	47	-0.228	-24.843	9.907	1.00	0.00
ATOM	409	CE	MET	47	-0.295	-25.067	11.697	1.00	0.00
ATOM	410	C	MET	47	-0.341	-26.423	5.562	1.00	0.00
ATOM	411	O	MET	47	-0.239	-25.347	4.979	1.00	0.00
ATOM	412	N	LEU	48	-0.080	-27.592	4.962	1.00	0.00
ATOM	413	CA	LEU	48	0.341	-27.712	3.566	1.00	0.00
ATOM	414	CB	LEU	48	0.472	-29.191	3.161	1.00	0.00
ATOM	415	CG	LEU	48	1.879	-29.779	3.339	1.00	0.00
ATOM	416	CD1	LEU	48	2.235	-30.031	4.804	1.00	0.00
ATOM	417	CD2	LEU	48	1.993	-31.106	2.591	1.00	0.00
ATOM	418	C	LEU	48	-0.675	-27.017	2.659	1.00	0.00
ATOM	419	O	LEU	48	-0.324	-26.129	1.880	1.00	0.00
ATOM	420	N	LYS	49	-1.936	-27.438	2.781	1.00	0.00
ATOM	421	CA	LYS	49	-3.046	-26.902	2.019	1.00	0.00
ATOM	422	CB	LYS	49	-4.343	-27.535	2.537	1.00	0.00
ATOM	423	CG	LYS	49	-5.593	-26.957	1.855	1.00	0.00
ATOM	424	CD	LYS	49	-6.775	-26.875	2.822	1.00	0.00
ATOM	425	CE	LYS	49	-6.598	-25.880	3.979	1.00	0.00
ATOM	426	NZ	LYS	49	-7.868	-25.681	4.698	1.00	0.00
ATOM	427	C	LYS	49	-3.113	-25.384	2.163	1.00	0.00
ATOM	428	O	LYS	49	-3.075	-24.670	1.165	1.00	0.00
ATOM	429	N	ASP	50	-3.245	-24.899	3.402	1.00	0.00
ATOM	430	CA	ASP	50	-3.375	-23.481	3.672	1.00	0.00
ATOM	431	CB	ASP	50	-3.573	-23.213	5.161	1.00	0.00
ATOM	432	CG	ASP	50	-3.923	-21.746	5.355	1.00	0.00
ATOM	433	OD1	ASP	50	-3.144	-21.041	6.026	1.00	0.00
ATOM	434	OD2	ASP	50	-4.986	-21.348	4.833	1.00	0.00
ATOM	435	C	ASP	50	-2.202	-22.678	3.122	1.00	0.00
ATOM	436	O	ASP	50	-2.413	-21.615	2.544	1.00	0.00
ATOM	437	N	ARG	51	-0.973	-23.177	3.282	1.00	0.00
ATOM	438	CA	ARG	51	0.197	-22.485	2.774	1.00	0.00
ATOM	439	CB	ARG	51	1.492	-23.225	3.134	1.00	0.00
ATOM	440	CG	ARG	51	2.724	-22.545	2.511	1.00	0.00
ATOM	441	CD	ARG	51	2.875	-21.092	2.978	1.00	0.00
ATOM	442	NE	ARG	51	4.153	-20.518	2.544	1.00	0.00
ATOM	443	CZ	ARG	51	4.466	-19.212	2.536	1.00	0.00
ATOM	444	NH1	ARG	51	3.548	-18.286	2.834	1.00	0.00
ATOM	445	NH2	ARG	51	5.711	-18.827	2.236	1.00	0.00
ATOM	446	C	ARG	51	0.079	-22.311	1.265	1.00	0.00
ATOM	447	O	ARG	51	0.235	-21.196	0.769	1.00	0.00
ATOM	448	N	TRP	52	-0.194	-23.396	0.530	1.00	0.00
ATOM	449	CA	TRP	52	-0.314	-23.317	-0.911	1.00	0.00
ATOM	450	CB	TRP	52	-0.445	-24.719	-1.489	1.00	0.00
ATOM	451	CG	TRP	52	-0.201	-24.825	-2.961	1.00	0.00
ATOM	452	CD1	TRP	52	-1.167	-24.928	-3.894	1.00	0.00

585				586				
ATOM	453	NE1 TRP	52	-0.603	-25.033	-5.147	1.00	0.00
ATOM	454	CE2 TRP	52	0.774	-24.996	-5.080	1.00	0.00
ATOM	455	CZ2 TRP	52	1.779	-25.071	-6.055	1.00	0.00
ATOM	456	CH2 TRP	52	3.122	-25.002	-5.658	1.00	0.00
ATOM	457	CZ3 TRP	52	3.443	-24.852	-4.298	1.00	0.00
ATOM	458	CE3 TRP	52	2.427	-24.778	-3.327	1.00	0.00
ATOM	459	CD2 TRP	52	1.063	-24.853	-3.690	1.00	0.00
ATOM	460	C TRP	52	-1.482	-22.416	-1.306	1.00	0.00
ATOM	461	O TRP	52	-1.364	-21.660	-2.262	1.00	0.00
ATOM	462	N ARG	53	-2.598	-22.477	-0.568	1.00	0.00
ATOM	463	CA ARG	53	-3.778	-21.655	-0.807	1.00	0.00
ATOM	464	CB ARG	53	-4.884	-22.056	0.187	1.00	0.00
ATOM	465	CG ARG	53	-6.169	-21.218	0.091	1.00	0.00
ATOM	466	CD ARG	53	-6.233	-20.107	1.152	1.00	0.00
ATOM	467	NE ARG	53	-6.430	-20.635	2.516	1.00	0.00
ATOM	468	CZ ARG	53	-7.603	-20.733	3.166	1.00	0.00
ATOM	469	NH1 ARG	53	-7.605	-21.033	4.467	1.00	0.00
ATOM	470	NH2 ARG	53	-8.771	-20.521	2.544	1.00	0.00
ATOM	471	C ARG	53	-3.383	-20.178	-0.725	1.00	0.00
ATOM	472	O ARG	53	-3.654	-19.417	-1.651	1.00	0.00
ATOM	473	N THR	54	-2.728	-19.782	0.371	1.00	0.00
ATOM	474	CA THR	54	-2.250	-18.429	0.617	1.00	0.00
ATOM	475	CB THR	54	-1.546	-18.401	1.986	1.00	0.00
ATOM	476	CG2 THR	54	-0.791	-17.100	2.257	1.00	0.00
ATOM	477	OG1 THR	54	-2.497	-18.579	3.013	1.00	0.00
ATOM	478	C THR	54	-1.301	-17.997	-0.502	1.00	0.00
ATOM	479	O THR	54	-1.564	-17.023	-1.204	1.00	0.00
ATOM	480	N MET	55	-0.192	-18.725	-0.651	1.00	0.00
ATOM	481	CA MET	55	0.857	-18.508	-1.620	1.00	0.00
ATOM	482	CB MET	55	1.761	-19.744	-1.518	1.00	0.00
ATOM	483	CG MET	55	2.879	-19.736	-2.543	1.00	0.00
ATOM	484	SD MET	55	4.063	-18.391	-2.377	1.00	0.00
ATOM	485	CE MET	55	4.681	-18.554	-4.053	1.00	0.00
ATOM	486	C MET	55	0.286	-18.298	-3.025	1.00	0.00
ATOM	487	O MET	55	0.585	-17.301	-3.679	1.00	0.00
ATOM	488	N LYS	56	-0.534	-19.247	-3.482	1.00	0.00
ATOM	489	CA LYS	56	-1.168	-19.237	-4.787	1.00	0.00
ATOM	490	CB LYS	56	-1.885	-20.580	-4.978	1.00	0.00
ATOM	491	CG LYS	56	-2.492	-20.781	-6.367	1.00	0.00
ATOM	492	CD LYS	56	-2.879	-22.260	-6.503	1.00	0.00
ATOM	493	CE LYS	56	-3.650	-22.508	-7.800	1.00	0.00
ATOM	494	NZ LYS	56	-3.893	-23.948	-8.021	1.00	0.00
ATOM	495	C LYS	56	-2.090	-18.028	-4.925	1.00	0.00
ATOM	496	O LYS	56	-1.906	-17.220	-5.829	1.00	0.00
ATOM	497	N LYS	57	-3.075	-17.892	-4.034	1.00	0.00
ATOM	498	CA LYS	57	-4.026	-16.788	-4.047	1.00	0.00
ATOM	499	CB LYS	57	-4.934	-16.896	-2.812	1.00	0.00
ATOM	500	CG LYS	57	-6.028	-15.819	-2.782	1.00	0.00
ATOM	501	CD LYS	57	-6.913	-16.014	-1.543	1.00	0.00
ATOM	502	CE LYS	57	-8.067	-15.005	-1.488	1.00	0.00

587					588				
ATOM	503	NZ	LYS	57	-7.594	-13.614	-1.357	1.00	0.00
ATOM	504	C	LYS	57	-3.346	-15.414	-4.108	1.00	0.00
ATOM	505	O	LYS	57	-3.779	-14.555	-4.874	1.00	0.00
ATOM	506	N	LEU	58	-2.312	-15.193	-3.289	1.00	0.00
ATOM	507	CA	LEU	58	-1.619	-13.915	-3.203	1.00	0.00
ATOM	508	CB	LEU	58	-0.977	-13.757	-1.814	1.00	0.00
ATOM	509	CG	LEU	58	-1.973	-13.767	-0.640	1.00	0.00
ATOM	510	CD1	LEU	58	-1.187	-13.653	0.672	1.00	0.00
ATOM	511	CD2	LEU	58	-2.985	-12.616	-0.716	1.00	0.00
ATOM	512	C	LEU	58	-0.567	-13.689	-4.294	1.00	0.00
ATOM	513	O	LEU	58	-0.640	-12.690	-5.006	1.00	0.00
ATOM	514	N	LYS	59	0.432	-14.573	-4.404	1.00	0.00
ATOM	515	CA	LYS	59	1.536	-14.406	-5.344	1.00	0.00
ATOM	516	CB	LYS	59	2.832	-14.950	-4.730	1.00	0.00
ATOM	517	CG	LYS	59	3.162	-14.230	-3.414	1.00	0.00
ATOM	518	CD	LYS	59	4.608	-14.525	-3.001	1.00	0.00
ATOM	519	CE	LYS	59	5.015	-13.794	-1.716	1.00	0.00
ATOM	520	NZ	LYS	59	4.249	-14.243	-0.540	1.00	0.00
ATOM	521	C	LYS	59	1.294	-14.983	-6.740	1.00	0.00
ATOM	522	O	LYS	59	2.016	-14.613	-7.662	1.00	0.00
ATOM	523	N	LEU	60	0.307	-15.869	-6.910	1.00	0.00
ATOM	524	CA	LEU	60	-0.030	-16.479	-8.193	1.00	0.00
ATOM	525	CB	LEU	60	-0.620	-15.443	-9.169	1.00	0.00
ATOM	526	CG	LEU	60	-1.912	-14.782	-8.658	1.00	0.00
ATOM	527	CD1	LEU	60	-2.209	-13.535	-9.498	1.00	0.00
ATOM	528	CD2	LEU	60	-3.112	-15.735	-8.748	1.00	0.00
ATOM	529	C	LEU	60	1.155	-17.240	-8.788	1.00	0.00
ATOM	530	O	LEU	60	1.811	-16.770	-9.715	1.00	0.00
ATOM	531	N	ILE	61	1.400	-18.440	-8.249	1.00	0.00
ATOM	532	CA	ILE	61	2.461	-19.346	-8.682	1.00	0.00
ATOM	533	CB	ILE	61	2.338	-20.687	-7.931	1.00	0.00
ATOM	534	CG2	ILE	61	3.384	-21.697	-8.434	1.00	0.00
ATOM	535	CG1	ILE	61	2.491	-20.474	-6.414	1.00	0.00
ATOM	536	CD1	ILE	61	2.217	-21.759	-5.634	1.00	0.00
ATOM	537	C	ILE	61	2.369	-19.555	-10.198	1.00	0.00
ATOM	538	O	ILE	61	3.375	-19.481	-10.902	1.00	0.00
ATOM	539	N	SER	62	1.153	-19.818	-10.686	1.00	0.00
ATOM	540	CA	SER	62	0.851	-20.034	-12.088	1.00	0.00
ATOM	541	CB	SER	62	1.349	-21.413	-12.539	1.00	0.00
ATOM	542	OG	SER	62	0.853	-22.432	-11.693	1.00	0.00
ATOM	543	C	SER	62	-0.658	-19.887	-12.279	1.00	0.00
ATOM	544	O	SER	62	-1.423	-19.985	-11.318	1.00	0.00
ATOM	545	N	SER	63	-1.083	-19.645	-13.523	1.00	0.00
ATOM	546	CA	SER	63	-2.485	-19.484	-13.887	1.00	0.00
ATOM	547	CB	SER	63	-2.936	-18.035	-13.647	1.00	0.00
ATOM	548	OG	SER	63	-2.685	-17.645	-12.310	1.00	0.00
ATOM	549	C	SER	63	-2.658	-19.910	-15.344	1.00	0.00
ATOM	550	O	SER	63	-3.183	-19.159	-16.163	1.00	0.00
ATOM	551	N	ASP	64	-2.199	-21.128	-15.655	1.00	0.00
ATOM	552	CA	ASP	64	-2.264	-21.711	-16.988	1.00	0.00

(296)

特開2003-135087

589				590			
ATOM	553	CB ASP	64	-1.197	-22.811	-17.095	1.00 0.00
ATOM	554	CG ASP	64	-1.129	-23.441	-18.484	1.00 0.00
ATOM	555	OD1 ASP	64	-1.481	-22.737	-19.456	1.00 0.00
ATOM	556	OD2 ASP	64	-0.699	-24.612	-18.549	1.00 0.00
ATOM	557	C ASP	64	-3.684	-22.226	-17.243	1.00 0.00
ATOM	558	O ASP	64	-3.927	-23.431	-17.294	1.00 0.00
ATOM	559	N SER	65	-4.627	-21.291	-17.384	1.00 0.00
ATOM	560	CA SER	65	-6.036	-21.568	-17.607	1.00 0.00
ATOM	561	CB SER	65	-6.664	-22.114	-16.317	1.00 0.00
ATOM	562	OG SER	65	-6.376	-21.258	-15.228	1.00 0.00
ATOM	563	C SER	65	-6.731	-20.273	-18.024	1.00 0.00
ATOM	564	O SER	65	-6.695	-19.301	-17.271	1.00 0.00
ATOM	565	N GLU	66	-7.359	-20.267	-19.204	1.00 0.00
ATOM	566	CA GLU	66	-8.079	-19.112	-19.722	1.00 0.00
ATOM	567	CB GLU	66	-8.362	-19.307	-21.221	1.00 0.00
ATOM	568	CG GLU	66	-9.233	-20.533	-21.533	1.00 0.00
ATOM	569	CD GLU	66	-9.399	-20.719	-23.037	1.00 0.00
ATOM	570	OE1 GLU	66	-10.506	-20.419	-23.535	1.00 0.00
ATOM	571	OE2 GLU	66	-8.410	-21.159	-23.664	1.00 0.00
ATOM	572	C GLU	66	-9.358	-18.859	-18.914	1.00 0.00
ATOM	573	O GLU	66	-9.832	-19.744	-18.199	1.00 0.00
ATOM	574	N ASP	67	-9.906	-17.646	-19.036	1.00 0.00
ATOM	575	CA ASP	67	-11.114	-17.198	-18.359	1.00 0.00
ATOM	576	CB ASP	67	-10.803	-16.790	-16.908	1.00 0.00
ATOM	577	CG ASP	67	-9.897	-15.564	-16.801	1.00 0.00
ATOM	578	OD1 ASP	67	-10.419	-14.501	-16.402	1.00 0.00
ATOM	579	OD2 ASP	67	-8.686	-15.716	-17.079	1.00 0.00
ATOM	580	C ASP	67	-11.736	-16.043	-19.148	1.00 0.00
ATOM	581	OT1 ASP	67	-12.975	-15.910	-19.049	1.00 0.00
ATOM	582	OT2 ASP	67	-11.032	-15.533	-20.050	1.00 0.00
ATOM	583	O5' GUA	68	-8.505	-41.295	10.827	1.00 0.00
ATOM	584	C5' GUA	68	-7.330	-40.867	10.171	1.00 0.00
ATOM	585	C4' GUA	68	-7.650	-39.911	9.010	1.00 0.00
ATOM	586	O4' GUA	68	-9.009	-39.506	8.990	1.00 0.00
ATOM	587	C1' GUA	68	-9.110	-38.457	8.050	1.00 0.00
ATOM	588	N9 GUA	68	-10.316	-37.624	8.232	1.00 0.00
ATOM	589	C8 GUA	68	-10.739	-36.989	9.367	1.00 0.00
ATOM	590	N7 GUA	68	-11.859	-36.335	9.227	1.00 0.00
ATOM	591	C5 GUA	68	-12.184	-36.520	7.885	1.00 0.00
ATOM	592	C6 GUA	68	-13.295	-36.040	7.128	1.00 0.00
ATOM	593	O6 GUA	68	-14.285	-35.434	7.531	1.00 0.00
ATOM	594	N1 GUA	68	-13.179	-36.332	5.773	1.00 0.00
ATOM	595	C2 GUA	68	-12.145	-37.055	5.215	1.00 0.00
ATOM	596	N2 GUA	68	-12.159	-37.246	3.894	1.00 0.00
ATOM	597	N3 GUA	68	-11.131	-37.558	5.932	1.00 0.00
ATOM	598	C4 GUA	68	-11.208	-37.253	7.255	1.00 0.00
ATOM	599	C3' GUA	68	-6.915	-38.568	9.112	1.00 0.00
ATOM	600	C2' GUA	68	-7.859	-37.655	8.332	1.00 0.00
ATOM	601	O3' GUA	68	-5.619	-38.661	8.540	1.00 0.00
ATOM	602	P THY	69	-4.682	-37.366	8.250	1.00 0.00

591				592			
ATOM	603	OP1	THY	69	-3.317	-37.850	7.945 1.00 0.00
ATOM	604	OP2	THY	69	-4.888	-36.388	9.341 1.00 0.00
ATOM	605	O5'	THY	69	-5.302	-36.740	6.894 1.00 0.00
ATOM	606	C5'	THY	69	-5.550	-37.558	5.761 1.00 0.00
ATOM	607	C4'	THY	69	-6.525	-36.892	4.780 1.00 0.00
ATOM	608	O4'	THY	69	-7.767	-36.492	5.318 1.00 0.00
ATOM	609	C1'	THY	69	-8.238	-35.346	4.646 1.00 0.00
ATOM	610	N1	THY	69	-9.228	-34.654	5.515 1.00 0.00
ATOM	611	C6	THY	69	-8.954	-34.504	6.853 1.00 0.00
ATOM	612	C5	THY	69	-9.822	-33.883	7.687 1.00 0.00
ATOM	613	C7	THY	69	-9.396	-33.737	9.137 1.00 0.00
ATOM	614	C4	THY	69	-11.089	-33.373	7.211 1.00 0.00
ATOM	615	O4	THY	69	-11.922	-32.784	7.892 1.00 0.00
ATOM	616	N3	THY	69	-11.316	-33.595	5.861 1.00 0.00
ATOM	617	C2	THY	69	-10.436	-34.208	4.978 1.00 0.00
ATOM	618	O2	THY	69	-10.738	-34.334	3.794 1.00 0.00
ATOM	619	C3'	THY	69	-5.939	-35.646	4.109 1.00 0.00
ATOM	620	C2'	THY	69	-6.937	-34.561	4.508 1.00 0.00
ATOM	621	O3'	THY	69	-5.845	-35.821	2.704 1.00 0.00
ATOM	622	P	THY	70	-5.093	-34.734	1.779 1.00 0.00
ATOM	623	OP1	THY	70	-4.504	-35.422	0.610 1.00 0.00
ATOM	624	OP2	THY	70	-4.196	-33.958	2.658 1.00 0.00
ATOM	625	O5'	THY	70	-6.256	-33.742	1.292 1.00 0.00
ATOM	626	C5'	THY	70	-7.295	-34.163	0.433 1.00 0.00
ATOM	627	C4'	THY	70	-8.437	-33.145	0.513 1.00 0.00
ATOM	628	O4'	THY	70	-8.836	-32.987	1.860 1.00 0.00
ATOM	629	C1'	THY	70	-9.558	-31.782	1.939 1.00 0.00
ATOM	630	N1	THY	70	-9.719	-31.331	3.345 1.00 0.00
ATOM	631	C6	THY	70	-8.660	-31.383	4.220 1.00 0.00
ATOM	632	C5	THY	70	-8.801	-31.002	5.512 1.00 0.00
ATOM	633	C7	THY	70	-7.554	-31.104	6.369 1.00 0.00
ATOM	634	C4	THY	70	-10.068	-30.525	6.029 1.00 0.00
ATOM	635	O4	THY	70	-10.283	-30.145	7.177 1.00 0.00
ATOM	636	N3	THY	70	-11.084	-30.508	5.089 1.00 0.00
ATOM	637	C2	THY	70	-10.954	-30.828	3.748 1.00 0.00
ATOM	638	O2	THY	70	-11.882	-30.624	2.971 1.00 0.00
ATOM	639	C3'	THY	70	-8.046	-31.727	0.070 1.00 0.00
ATOM	640	C2'	THY	70	-8.681	-30.826	1.137 1.00 0.00
ATOM	641	O3'	THY	70	-8.532	-31.451	-1.230 1.00 0.00
ATOM	642	P	ADE	71	-8.138	-30.090	-2.005 1.00 0.00
ATOM	643	OP1	ADE	71	-6.790	-29.675	-1.556 1.00 0.00
ATOM	644	OP2	ADE	71	-8.411	-30.274	-3.446 1.00 0.00
ATOM	645	O5'	ADE	71	-9.166	-29.004	-1.424 1.00 0.00
ATOM	646	C5'	ADE	71	-10.519	-28.932	-1.820 1.00 0.00
ATOM	647	C4'	ADE	71	-11.190	-27.762	-1.084 1.00 0.00
ATOM	648	O4'	ADE	71	-11.448	-28.090	0.282 1.00 0.00
ATOM	649	C1'	ADE	71	-11.111	-26.971	1.077 1.00 0.00
ATOM	650	N9	ADE	71	-10.886	-27.286	2.507 1.00 0.00
ATOM	651	C8	ADE	71	-9.801	-27.910	3.053 1.00 0.00
ATOM	652	N7	ADE	71	-9.719	-27.863	4.350 1.00 0.00

593					594				
ATOM	653	C5	ADE	71	-10.896	-27.220	4.701	1.00	0.00
ATOM	654	C6	ADE	71	-11.444	-26.884	5.948	1.00	0.00
ATOM	655	N6	ADE	71	-10.826	-27.192	7.090	1.00	0.00
ATOM	656	N1	ADE	71	-12.604	-26.204	5.984	1.00	0.00
ATOM	657	C2	ADE	71	-13.197	-25.892	4.830	1.00	0.00
ATOM	658	N3	ADE	71	-12.785	-26.156	3.592	1.00	0.00
ATOM	659	C4	ADE	71	-11.613	-26.846	3.592	1.00	0.00
ATOM	660	C3'	ADE	71	-10.281	-26.515	-1.053	1.00	0.00
ATOM	661	C2'	ADE	71	-9.800	-26.592	0.395	1.00	0.00
ATOM	662	O3'	ADE	71	-11.056	-25.361	-1.295	1.00	0.00
ATOM	663	P	GUA	72	-10.409	-23.896	-1.492	1.00	0.00
ATOM	664	OP1	GUA	72	-9.085	-23.837	-0.832	1.00	0.00
ATOM	665	OP2	GUA	72	-10.553	-23.495	-2.909	1.00	0.00
ATOM	666	O5'	GUA	72	-11.427	-23.030	-0.609	1.00	0.00
ATOM	667	C5'	GUA	72	-12.806	-22.975	-0.916	1.00	0.00
ATOM	668	C4'	GUA	72	-13.552	-22.314	0.244	1.00	0.00
ATOM	669	O4'	GUA	72	-13.265	-23.023	1.441	1.00	0.00
ATOM	670	C1'	GUA	72	-12.744	-22.150	2.425	1.00	0.00
ATOM	671	N9	GUA	72	-11.731	-22.848	3.255	1.00	0.00
ATOM	672	C8	GUA	72	-10.572	-23.462	2.847	1.00	0.00
ATOM	673	N7	GUA	72	-9.839	-23.929	3.818	1.00	0.00
ATOM	674	C5	GUA	72	-10.575	-23.630	4.959	1.00	0.00
ATOM	675	C6	GUA	72	-10.294	-23.911	6.330	1.00	0.00
ATOM	676	O6	GUA	72	-9.284	-24.444	6.789	1.00	0.00
ATOM	677	N1	GUA	72	-11.329	-23.532	7.178	1.00	0.00
ATOM	678	C2	GUA	72	-12.500	-22.935	6.755	1.00	0.00
ATOM	679	N2	GUA	72	-13.392	-22.590	7.683	1.00	0.00
ATOM	680	N3	GUA	72	-12.746	-22.629	5.472	1.00	0.00
ATOM	681	C4	GUA	72	-11.754	-23.008	4.622	1.00	0.00
ATOM	682	C3'	GUA	72	-13.105	-20.865	0.468	1.00	0.00
ATOM	683	C2'	GUA	72	-12.104	-21.028	1.610	1.00	0.00
ATOM	684	O3'	GUA	72	-14.240	-20.093	0.809	1.00	0.00
ATOM	685	P	GUA	73	-14.146	-18.522	1.158	1.00	0.00
ATOM	686	OP1	GUA	73	-15.361	-17.857	0.641	1.00	0.00
ATOM	687	OP2	GUA	73	-12.807	-18.023	0.773	1.00	0.00
ATOM	688	O5'	GUA	73	-14.228	-18.561	2.763	1.00	0.00
ATOM	689	C5'	GUA	73	-15.396	-19.025	3.413	1.00	0.00
ATOM	690	C4'	GUA	73	-15.247	-18.899	4.930	1.00	0.00
ATOM	691	O4'	GUA	73	-14.158	-19.688	5.380	1.00	0.00
ATOM	692	C1'	GUA	73	-13.397	-18.959	6.320	1.00	0.00
ATOM	693	N9	GUA	73	-12.009	-19.476	6.329	1.00	0.00
ATOM	694	C8	GUA	73	-11.170	-19.648	5.258	1.00	0.00
ATOM	695	N7	GUA	73	-10.051	-20.256	5.536	1.00	0.00
ATOM	696	C5	GUA	73	-10.138	-20.486	6.904	1.00	0.00
ATOM	697	C6	GUA	73	-9.225	-21.147	7.779	1.00	0.00
ATOM	698	O6	GUA	73	-8.131	-21.632	7.494	1.00	0.00
ATOM	699	N1	GUA	73	-9.705	-21.231	9.082	1.00	0.00
ATOM	700	C2	GUA	73	-10.923	-20.731	9.499	1.00	0.00
ATOM	701	N2	GUA	73	-11.240	-20.846	10.790	1.00	0.00
ATOM	702	N3	GUA	73	-11.778	-20.104	8.681	1.00	0.00

595					596				
ATOM	703	C4	GUA	73	-11.333	-20.015	7.400	1.00	0.00
ATOM	704	C3'	GUA	73	-14.953	-17.456	5.365	1.00	0.00
ATOM	705	C2'	GUA	73	-13.478	-17.544	5.759	1.00	0.00
ATOM	706	O3'	GUA	73	-15.819	-17.139	6.439	1.00	0.00
ATOM	707	P	GUA	74	-15.814	-15.701	7.171	1.00	0.00
ATOM	708	OP1	GUA	74	-14.924	-14.780	6.429	1.00	0.00
ATOM	709	OP2	GUA	74	-17.215	-15.313	7.449	1.00	0.00
ATOM	710	O5'	GUA	74	-15.105	-16.081	8.563	1.00	0.00
ATOM	711	C5'	GUA	74	-15.729	-16.972	9.470	1.00	0.00
ATOM	712	C4'	GUA	74	-14.863	-17.157	10.717	1.00	0.00
ATOM	713	O4'	GUA	74	-13.605	-17.701	10.351	1.00	0.00
ATOM	714	C1'	GUA	74	-12.563	-16.978	10.972	1.00	0.00
ATOM	715	N9	GUA	74	-11.345	-17.074	10.134	1.00	0.00
ATOM	716	C8	GUA	74	-11.192	-16.708	8.820	1.00	0.00
ATOM	717	N7	GUA	74	-10.060	-17.073	8.287	1.00	0.00
ATOM	718	C5	GUA	74	-9.403	-17.721	9.325	1.00	0.00
ATOM	719	C6	GUA	74	-8.142	-18.389	9.334	1.00	0.00
ATOM	720	O6	GUA	74	-7.383	-18.576	8.388	1.00	0.00
ATOM	721	N1	GUA	74	-7.816	-18.891	10.588	1.00	0.00
ATOM	722	C2	GUA	74	-8.631	-18.808	11.698	1.00	0.00
ATOM	723	N2	GUA	74	-8.170	-19.298	12.850	1.00	0.00
ATOM	724	N3	GUA	74	-9.835	-18.220	11.680	1.00	0.00
ATOM	725	C4	GUA	74	-10.166	-17.699	10.468	1.00	0.00
ATOM	726	C3'	GUA	74	-14.578	-15.826	11.428	1.00	0.00
ATOM	727	C2'	GUA	74	-13.128	-15.561	11.023	1.00	0.00
ATOM	728	O3'	GUA	74	-14.758	-16.014	12.820	1.00	0.00
ATOM	729	P	THY	75	-14.540	-14.832	13.896	1.00	0.00
ATOM	730	OP1	THY	75	-15.488	-15.037	15.013	1.00	0.00
ATOM	731	OP2	THY	75	-14.502	-13.535	13.185	1.00	0.00
ATOM	732	O5'	THY	75	-13.059	-15.166	14.422	1.00	0.00
ATOM	733	C5'	THY	75	-12.802	-16.360	15.134	1.00	0.00
ATOM	734	C4'	THY	75	-11.300	-16.512	15.363	1.00	0.00
ATOM	735	O4'	THY	75	-10.622	-16.469	14.123	1.00	0.00
ATOM	736	C1'	THY	75	-9.363	-15.871	14.322	1.00	0.00
ATOM	737	N1	THY	75	-8.790	-15.442	13.016	1.00	0.00
ATOM	738	C6	THY	75	-9.523	-14.676	12.136	1.00	0.00
ATOM	739	C5	THY	75	-9.082	-14.430	10.875	1.00	0.00
ATOM	740	C7	THY	75	-9.968	-13.548	10.016	1.00	0.00
ATOM	741	C4	THY	75	-7.834	-14.981	10.388	1.00	0.00
ATOM	742	O4	THY	75	-7.387	-14.899	9.245	1.00	0.00
ATOM	743	N3	THY	75	-7.129	-15.669	11.354	1.00	0.00
ATOM	744	C2	THY	75	-7.535	-15.929	12.652	1.00	0.00
ATOM	745	O2	THY	75	-6.803	-16.560	13.408	1.00	0.00
ATOM	746	C3'	THY	75	-10.699	-15.384	16.216	1.00	0.00
ATOM	747	C2'	THY	75	-9.734	-14.708	15.237	1.00	0.00
ATOM	748	O3'	THY	75	-10.059	-15.971	17.336	1.00	0.00
ATOM	749	P	THY	76	-9.333	-15.099	18.482	1.00	0.00
ATOM	750	OP1	THY	76	-9.743	-13.684	18.343	1.00	0.00
ATOM	751	OP2	THY	76	-9.505	-15.795	19.777	1.00	0.00
ATOM	752	O5'	THY	76	-7.791	-15.223	18.042	1.00	0.00

(300)

特開2003-135087

597

598

ATOM	753	C5'	THY	76	-7.110	-16.460	18.127	1.00	0.00
ATOM	754	C4'	THY	76	-5.690	-16.325	17.572	1.00	0.00
ATOM	755	O4'	THY	76	-5.749	-15.954	16.205	1.00	0.00
ATOM	756	C1'	THY	76	-4.781	-14.961	15.959	1.00	0.00
ATOM	757	N1	THY	76	-5.080	-14.239	14.688	1.00	0.00
ATOM	758	C6	THY	76	-6.164	-13.396	14.579	1.00	0.00
ATOM	759	C5	THY	76	-6.464	-12.780	13.407	1.00	0.00
ATOM	760	C7	THY	76	-7.684	-11.877	13.420	1.00	0.00
ATOM	761	C4	THY	76	-5.663	-12.979	12.217	1.00	0.00
ATOM	762	O4	THY	76	-5.870	-12.479	11.113	1.00	0.00
ATOM	763	N3	THY	76	-4.598	-13.841	12.403	1.00	0.00
ATOM	764	C2	THY	76	-4.287	-14.518	13.571	1.00	0.00
ATOM	765	O2	THY	76	-3.360	-15.328	13.582	1.00	0.00
ATOM	766	C3'	THY	76	-4.878	-15.228	18.282	1.00	0.00
ATOM	767	C2'	THY	76	-4.883	-14.117	17.231	1.00	0.00
ATOM	768	O3'	THY	76	-3.566	-15.702	18.532	1.00	0.00
ATOM	769	P	ADE	77	-2.576	-14.975	19.581	1.00	0.00
ATOM	770	OP1	ADE	77	-2.401	-15.863	20.751	1.00	0.00
ATOM	771	OP2	ADE	77	-3.022	-13.578	19.770	1.00	0.00
ATOM	772	O5'	ADE	77	-1.200	-14.945	18.752	1.00	0.00
ATOM	773	C5'	ADE	77	-0.409	-16.106	18.597	1.00	0.00
ATOM	774	C4'	ADE	77	0.604	-15.893	17.471	1.00	0.00
ATOM	775	O4'	ADE	77	-0.104	-15.527	16.295	1.00	0.00
ATOM	776	C1'	ADE	77	0.484	-14.387	15.702	1.00	0.00
ATOM	777	N9	ADE	77	-0.518	-13.600	14.947	1.00	0.00
ATOM	778	C8	ADE	77	-1.652	-12.997	15.433	1.00	0.00
ATOM	779	N7	ADE	77	-2.315	-12.302	14.552	1.00	0.00
ATOM	780	C5	ADE	77	-1.563	-12.453	13.393	1.00	0.00
ATOM	781	C6	ADE	77	-1.715	-11.945	12.087	1.00	0.00
ATOM	782	N6	ADE	77	-2.742	-11.164	11.749	1.00	0.00
ATOM	783	N1	ADE	77	-0.803	-12.273	11.150	1.00	0.00
ATOM	784	C2	ADE	77	0.200	-13.077	11.500	1.00	0.00
ATOM	785	N3	ADE	77	0.449	-13.634	12.684	1.00	0.00
ATOM	786	C4	ADE	77	-0.476	-13.260	13.612	1.00	0.00
ATOM	787	C3'	ADE	77	1.605	-14.759	17.740	1.00	0.00
ATOM	788	C2'	ADE	77	0.994	-13.622	16.917	1.00	0.00
ATOM	789	O3'	ADE	77	2.887	-15.173	17.295	1.00	0.00
ATOM	790	P	GUA	78	4.135	-14.159	17.219	1.00	0.00
ATOM	791	OP1	GUA	78	3.877	-12.993	18.090	1.00	0.00
ATOM	792	OP2	GUA	78	5.399	-14.915	17.367	1.00	0.00
ATOM	793	O5'	GUA	78	4.035	-13.685	15.687	1.00	0.00
ATOM	794	C5'	GUA	78	4.370	-14.561	14.625	1.00	0.00
ATOM	795	C4'	GUA	78	5.128	-13.821	13.526	1.00	0.00
ATOM	796	O4'	GUA	78	4.216	-13.070	12.752	1.00	0.00
ATOM	797	C1'	GUA	78	4.505	-11.690	12.812	1.00	0.00
ATOM	798	N9	GUA	78	3.208	-10.981	12.906	1.00	0.00
ATOM	799	C8	GUA	78	2.286	-11.012	13.924	1.00	0.00
ATOM	800	N7	GUA	78	1.152	-10.435	13.640	1.00	0.00
ATOM	801	C5	GUA	78	1.326	-9.992	12.335	1.00	0.00
ATOM	802	C6	GUA	78	0.423	-9.300	11.473	1.00	0.00

(301)

特開2003-135087

599

600

ATOM	803	O6	GUA	78	-0.707	-8.894	11.732	1.00	0.00
ATOM	804	N1	GUA	78	0.963	-9.072	10.211	1.00	0.00
ATOM	805	C2	GUA	78	2.242	-9.428	9.833	1.00	0.00
ATOM	806	N2	GUA	78	2.649	-9.083	8.610	1.00	0.00
ATOM	807	N3	GUA	78	3.096	-10.065	10.646	1.00	0.00
ATOM	808	C4	GUA	78	2.578	-10.323	11.876	1.00	0.00
ATOM	809	C3'	GUA	78	6.141	-12.836	14.116	1.00	0.00
ATOM	810	C2'	GUA	78	5.391	-11.506	14.044	1.00	0.00
ATOM	811	O3'	GUA	78	7.341	-12.887	13.368	1.00	0.00
ATOM	812	P	GUA	79	8.694	-12.184	13.890	1.00	0.00
ATOM	813	OP1	GUA	79	9.834	-12.844	13.221	1.00	0.00
ATOM	814	OP2	GUA	79	8.642	-12.143	15.375	1.00	0.00
ATOM	815	O5'	GUA	79	8.527	-10.701	13.284	1.00	0.00
ATOM	816	C5'	GUA	79	8.614	-10.495	11.884	1.00	0.00
ATOM	817	C4'	GUA	79	7.962	-9.177	11.457	1.00	0.00
ATOM	818	O4'	GUA	79	6.614	-9.109	11.873	1.00	0.00
ATOM	819	C1'	GUA	79	6.221	-7.759	11.806	1.00	0.00
ATOM	820	N9	GUA	79	4.962	-7.556	12.562	1.00	0.00
ATOM	821	C8	GUA	79	4.687	-7.921	13.856	1.00	0.00
ATOM	822	N7	GUA	79	3.462	-7.693	14.232	1.00	0.00
ATOM	823	C5	GUA	79	2.872	-7.124	13.109	1.00	0.00
ATOM	824	C6	GUA	79	1.532	-6.673	12.908	1.00	0.00
ATOM	825	O6	GUA	79	0.600	-6.670	13.708	1.00	0.00
ATOM	826	N1	GUA	79	1.323	-6.190	11.623	1.00	0.00
ATOM	827	C2	GUA	79	2.287	-6.138	10.640	1.00	0.00
ATOM	828	N2	GUA	79	1.907	-5.680	9.446	1.00	0.00
ATOM	829	N3	GUA	79	3.551	-6.548	10.827	1.00	0.00
ATOM	830	C4	GUA	79	3.780	-7.034	12.080	1.00	0.00
ATOM	831	C3'	GUA	79	8.627	-7.918	12.030	1.00	0.00
ATOM	832	C2'	GUA	79	7.419	-7.066	12.450	1.00	0.00
ATOM	833	O3'	GUA	79	9.431	-7.342	11.010	1.00	0.00
ATOM	834	P	GUA	80	10.259	-5.967	11.207	1.00	0.00
ATOM	835	OP1	GUA	80	11.374	-5.954	10.235	1.00	0.00
ATOM	836	OP2	GUA	80	10.531	-5.773	12.648	1.00	0.00
ATOM	837	O5'	GUA	80	9.183	-4.863	10.740	1.00	0.00
ATOM	838	C5'	GUA	80	8.717	-4.822	9.405	1.00	0.00
ATOM	839	C4'	GUA	80	7.517	-3.881	9.294	1.00	0.00
ATOM	840	O4'	GUA	80	6.482	-4.313	10.159	1.00	0.00
ATOM	841	C1'	GUA	80	5.824	-3.176	10.667	1.00	0.00
ATOM	842	N9	GUA	80	5.051	-3.515	11.881	1.00	0.00
ATOM	843	C8	GUA	80	5.506	-4.054	13.057	1.00	0.00
ATOM	844	N7	GUA	80	4.585	-4.226	13.961	1.00	0.00
ATOM	845	C5	GUA	80	3.426	-3.771	13.342	1.00	0.00
ATOM	846	C6	GUA	80	2.089	-3.710	13.831	1.00	0.00
ATOM	847	O6	GUA	80	1.658	-4.069	14.925	1.00	0.00
ATOM	848	N1	GUA	80	1.209	-3.192	12.891	1.00	0.00
ATOM	849	C2	GUA	80	1.561	-2.781	11.624	1.00	0.00
ATOM	850	N2	GUA	80	0.590	-2.296	10.847	1.00	0.00
ATOM	851	N3	GUA	80	2.817	-2.836	11.159	1.00	0.00
ATOM	852	C4	GUA	80	3.700	-3.341	12.063	1.00	0.00

(302)

特開2003-135087

601				602				
ATOM	853	C3' GUA	80	7.833	-2.434	9.707	1.00	0.00
ATOM	854	C2' GUA	80	7.004	-2.257	10.974	1.00	0.00
ATOM	855	O3' GUA	80	7.386	-1.528	8.721	1.00	0.00
ATOM	856	O5' CYT	81	-7.306	0.062	15.591	1.00	0.00
ATOM	857	C5' CYT	81	-6.845	1.049	14.694	1.00	0.00
ATOM	858	C4' CYT	81	-5.867	0.437	13.687	1.00	0.00
ATOM	859	O4' CYT	81	-4.818	-0.239	14.346	1.00	0.00
ATOM	860	C1' CYT	81	-4.210	-1.072	13.384	1.00	0.00
ATOM	861	N1 CYT	81	-3.363	-2.109	14.020	1.00	0.00
ATOM	862	C6 CYT	81	-3.830	-2.808	15.106	1.00	0.00
ATOM	863	C5 CYT	81	-3.107	-3.798	15.676	1.00	0.00
ATOM	864	C4 CYT	81	-1.819	-4.072	15.105	1.00	0.00
ATOM	865	N4 CYT	81	-1.027	-5.012	15.624	1.00	0.00
ATOM	866	N3 CYT	81	-1.388	-3.408	14.027	1.00	0.00
ATOM	867	C2 CYT	81	-2.137	-2.433	13.444	1.00	0.00
ATOM	868	O2 CYT	81	-1.725	-1.875	12.429	1.00	0.00
ATOM	869	C3' CYT	81	-6.495	-0.630	12.778	1.00	0.00
ATOM	870	C2' CYT	81	-5.417	-1.715	12.714	1.00	0.00
ATOM	871	O3' CYT	81	-6.799	-0.049	11.520	1.00	0.00
ATOM	872	P CYT	82	-7.457	-0.892	10.308	1.00	0.00
ATOM	873	OP1 CYT	82	-8.272	0.035	9.493	1.00	0.00
ATOM	874	OP2 CYT	82	-8.073	-2.114	10.871	1.00	0.00
ATOM	875	O5' CYT	82	-6.170	-1.334	9.442	1.00	0.00
ATOM	876	C5' CYT	82	-5.412	-0.388	8.710	1.00	0.00
ATOM	877	C4' CYT	82	-4.245	-1.079	7.992	1.00	0.00
ATOM	878	O4' CYT	82	-3.421	-1.725	8.943	1.00	0.00
ATOM	879	C1' CYT	82	-2.949	-2.954	8.433	1.00	0.00
ATOM	880	N1 CYT	82	-2.722	-3.871	9.579	1.00	0.00
ATOM	881	C6 CYT	82	-3.727	-4.040	10.493	1.00	0.00
ATOM	882	C5 CYT	82	-3.579	-4.814	11.586	1.00	0.00
ATOM	883	C4 CYT	82	-2.311	-5.465	11.751	1.00	0.00
ATOM	884	N4 CYT	82	-2.117	-6.298	12.774	1.00	0.00
ATOM	885	N3 CYT	82	-1.324	-5.299	10.857	1.00	0.00
ATOM	886	C2 CYT	82	-1.496	-4.516	9.750	1.00	0.00
ATOM	887	O2 CYT	82	-0.587	-4.407	8.929	1.00	0.00
ATOM	888	C3' CYT	82	-4.713	-2.162	7.007	1.00	0.00
ATOM	889	C2' CYT	82	-4.116	-3.444	7.577	1.00	0.00
ATOM	890	O3' CYT	82	-4.242	-1.854	5.703	1.00	0.00
ATOM	891	P CYT	83	-4.663	-2.712	4.396	1.00	0.00
ATOM	892	OP1 CYT	83	-5.900	-3.464	4.703	1.00	0.00
ATOM	893	OP2 CYT	83	-4.620	-1.813	3.222	1.00	0.00
ATOM	894	O5' CYT	83	-3.458	-3.772	4.260	1.00	0.00
ATOM	895	C5' CYT	83	-2.178	-3.373	3.808	1.00	0.00
ATOM	896	C4' CYT	83	-1.183	-4.527	3.967	1.00	0.00
ATOM	897	O4' CYT	83	-1.189	-4.953	5.314	1.00	0.00
ATOM	898	C1' CYT	83	-0.904	-6.330	5.374	1.00	0.00
ATOM	899	N1 CYT	83	-1.486	-6.860	6.631	1.00	0.00
ATOM	900	C6 CYT	83	-2.805	-6.621	6.909	1.00	0.00
ATOM	901	C5 CYT	83	-3.368	-6.987	8.078	1.00	0.00
ATOM	902	C4 CYT	83	-2.522	-7.664	9.017	1.00	0.00

(303)

特開2003-135087

603					604				
ATOM	903	N4	CYT	83	-3.015	-8.082	10.183	1.00	0.00
ATOM	904	N3	CYT	83	-1.230	-7.898	8.745	1.00	0.00
ATOM	905	C2	CYT	83	-0.676	-7.502	7.563	1.00	0.00
ATOM	906	O2	CYT	83	0.511	-7.727	7.343	1.00	0.00
ATOM	907	C3'	CYT	83	-1.523	-5.765	3.120	1.00	0.00
ATOM	908	C2'	CYT	83	-1.633	-6.888	4.154	1.00	0.00
ATOM	909	O3'	CYT	83	-0.489	-5.961	2.168	1.00	0.00
ATOM	910	P	THY	84	-0.485	-7.182	1.106	1.00	0.00
ATOM	911	OP1	THY	84	-1.883	-7.567	0.815	1.00	0.00
ATOM	912	OP2	THY	84	0.429	-6.828	-0.002	1.00	0.00
ATOM	913	O5'	THY	84	0.201	-8.366	1.956	1.00	0.00
ATOM	914	C5'	THY	84	1.533	-8.254	2.416	1.00	0.00
ATOM	915	C4'	THY	84	1.858	-9.393	3.384	1.00	0.00
ATOM	916	O4'	THY	84	1.042	-9.341	4.542	1.00	0.00
ATOM	917	C1'	THY	84	0.936	-10.651	5.053	1.00	0.00
ATOM	918	N1	THY	84	-0.149	-10.743	6.075	1.00	0.00
ATOM	919	C6	THY	84	-1.425	-10.334	5.765	1.00	0.00
ATOM	920	C5	THY	84	-2.420	-10.374	6.684	1.00	0.00
ATOM	921	C7	THY	84	-3.789	-9.930	6.205	1.00	0.00
ATOM	922	C4	THY	84	-2.185	-10.837	8.036	1.00	0.00
ATOM	923	O4	THY	84	-3.027	-10.883	8.926	1.00	0.00
ATOM	924	N3	THY	84	-0.886	-11.252	8.278	1.00	0.00
ATOM	925	C2	THY	84	0.155	-11.218	7.358	1.00	0.00
ATOM	926	O2	THY	84	1.272	-11.606	7.687	1.00	0.00
ATOM	927	C3'	THY	84	1.641	-10.791	2.777	1.00	0.00
ATOM	928	C2'	THY	84	0.627	-11.403	3.755	1.00	0.00
ATOM	929	O3'	THY	84	2.899	-11.445	2.734	1.00	0.00
ATOM	930	P	ADE	85	3.109	-12.919	2.116	1.00	0.00
ATOM	931	OP1	ADE	85	4.558	-13.150	1.904	1.00	0.00
ATOM	932	OP2	ADE	85	2.207	-13.123	0.959	1.00	0.00
ATOM	933	O5'	ADE	85	2.637	-13.871	3.311	1.00	0.00
ATOM	934	C5'	ADE	85	3.350	-13.895	4.529	1.00	0.00
ATOM	935	C4'	ADE	85	2.537	-14.617	5.598	1.00	0.00
ATOM	936	O4'	ADE	85	1.335	-13.951	5.919	1.00	0.00
ATOM	937	C1'	ADE	85	0.550	-14.890	6.614	1.00	0.00
ATOM	938	N9	ADE	85	-0.850	-14.442	6.756	1.00	0.00
ATOM	939	C8	ADE	85	-1.685	-13.912	5.805	1.00	0.00
ATOM	940	N7	ADE	85	-2.870	-13.593	6.249	1.00	0.00
ATOM	941	C5	ADE	85	-2.817	-13.946	7.594	1.00	0.00
ATOM	942	C6	ADE	85	-3.732	-13.828	8.658	1.00	0.00
ATOM	943	N6	ADE	85	-4.947	-13.291	8.520	1.00	0.00
ATOM	944	N1	ADE	85	-3.353	-14.256	9.874	1.00	0.00
ATOM	945	C2	ADE	85	-2.144	-14.780	10.030	1.00	0.00
ATOM	946	N3	ADE	85	-1.192	-14.946	9.123	1.00	0.00
ATOM	947	C4	ADE	85	-1.594	-14.487	7.907	1.00	0.00
ATOM	948	C3'	ADE	85	2.114	-16.034	5.198	1.00	0.00
ATOM	949	C2'	ADE	85	0.653	-16.071	5.667	1.00	0.00
ATOM	950	O3'	ADE	85	3.009	-16.921	5.843	1.00	0.00
ATOM	951	P	ADE	86	2.766	-18.503	5.941	1.00	0.00
ATOM	952	OP1	ADE	86	1.847	-18.894	4.846	1.00	0.00

605				606				
ATOM	953	OP2 ADE	86	4.088	-19.160	6.068	1.00	0.00
ATOM	954	O5' ADE	86	2.009	-18.600	7.351	1.00	0.00
ATOM	955	C5' ADE	86	2.524	-17.899	8.464	1.00	0.00
ATOM	956	C4' ADE	86	2.039	-18.453	9.800	1.00	0.00
ATOM	957	O4' ADE	86	0.728	-17.996	10.059	1.00	0.00
ATOM	958	C1' ADE	86	-0.206	-19.055	9.994	1.00	0.00
ATOM	959	N9 ADE	86	-1.365	-18.600	9.186	1.00	0.00
ATOM	960	C8 ADE	86	-1.468	-18.435	7.825	1.00	0.00
ATOM	961	N7 ADE	86	-2.570	-17.857	7.431	1.00	0.00
ATOM	962	C5 ADE	86	-3.263	-17.638	8.614	1.00	0.00
ATOM	963	C6 ADE	86	-4.513	-17.054	8.907	1.00	0.00
ATOM	964	N6 ADE	86	-5.316	-16.522	7.983	1.00	0.00
ATOM	965	N1 ADE	86	-4.891	-16.973	10.194	1.00	0.00
ATOM	966	C2 ADE	86	-4.085	-17.429	11.143	1.00	0.00
ATOM	967	N3 ADE	86	-2.883	-17.975	11.003	1.00	0.00
ATOM	968	C4 ADE	86	-2.530	-18.072	9.690	1.00	0.00
ATOM	969	C3' ADE	86	1.987	-19.981	9.890	1.00	0.00
ATOM	970	C2' ADE	86	0.552	-20.262	9.437	1.00	0.00
ATOM	971	O3' ADE	86	2.259	-20.320	11.238	1.00	0.00
ATOM	972	P CYT	87	2.342	-21.839	11.775	1.00	0.00
ATOM	973	OP1 CYT	87	3.418	-21.896	12.794	1.00	0.00
ATOM	974	OP2 CYT	87	2.381	-22.762	10.619	1.00	0.00
ATOM	975	O5' CYT	87	0.904	-21.966	12.510	1.00	0.00
ATOM	976	C5' CYT	87	0.609	-21.193	13.661	1.00	0.00
ATOM	977	C4' CYT	87	-0.887	-21.116	13.974	1.00	0.00
ATOM	978	O4' CYT	87	-1.592	-20.650	12.847	1.00	0.00
ATOM	979	C1' CYT	87	-2.927	-21.082	12.945	1.00	0.00
ATOM	980	N1 CYT	87	-3.554	-21.033	11.600	1.00	0.00
ATOM	981	C6 CYT	87	-2.848	-21.439	10.494	1.00	0.00
ATOM	982	C5 CYT	87	-3.330	-21.257	9.244	1.00	0.00
ATOM	983	C4 CYT	87	-4.605	-20.613	9.125	1.00	0.00
ATOM	984	N4 CYT	87	-5.080	-20.274	7.929	1.00	0.00
ATOM	985	N3 CYT	87	-5.312	-20.272	10.209	1.00	0.00
ATOM	986	C2 CYT	87	-4.826	-20.483	11.462	1.00	0.00
ATOM	987	O2 CYT	87	-5.505	-20.173	12.437	1.00	0.00
ATOM	988	C3' CYT	87	-1.565	-22.433	14.382	1.00	0.00
ATOM	989	C2' CYT	87	-2.763	-22.514	13.435	1.00	0.00
ATOM	990	O3' CYT	87	-1.936	-22.317	15.746	1.00	0.00
ATOM	991	P CYT	88	-2.530	-23.546	16.601	1.00	0.00
ATOM	992	OP1 CYT	88	-2.307	-23.239	18.036	1.00	0.00
ATOM	993	OP2 CYT	88	-1.975	-24.804	16.058	1.00	0.00
ATOM	994	O5' CYT	88	-4.111	-23.512	16.293	1.00	0.00
ATOM	995	C5' CYT	88	-4.944	-22.493	16.816	1.00	0.00
ATOM	996	C4' CYT	88	-6.298	-22.469	16.091	1.00	0.00
ATOM	997	O4' CYT	88	-6.116	-22.263	14.707	1.00	0.00
ATOM	998	C1' CYT	88	-7.277	-22.709	14.045	1.00	0.00
ATOM	999	N1 CYT	88	-6.977	-22.964	12.618	1.00	0.00
ATOM	1000	C6 CYT	88	-5.824	-23.618	12.276	1.00	0.00
ATOM	1001	C5 CYT	88	-5.454	-23.789	10.991	1.00	0.00
ATOM	1002	C4 CYT	88	-6.346	-23.267	9.990	1.00	0.00

(305)

特開2003-135087

607				608					
ATOM	1003	N4	CYT	88	-6.049	-23.352	8.692	1.00	0.00
ATOM	1004	N3	CYT	88	-7.503	-22.683	10.330	1.00	0.00
ATOM	1005	C2	CYT	88	-7.858	-22.527	11.635	1.00	0.00
ATOM	1006	O2	CYT	88	-8.943	-22.027	11.916	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.119	-23.765	16.194	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.565	-24.025	14.754	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.197	-23.547	17.092	1.00	0.00
ATOM	1010	P	CYT	89	-9.348	-24.645	17.376	1.00	0.00
ATOM	1011	OP1	CYT	89	-8.826	-25.978	17.002	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.874	-24.417	18.740	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.501	-24.244	16.316	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.227	-23.032	16.436	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.232	-22.886	15.285	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.550	-22.933	14.047	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.347	-23.571	13.070	1.00	0.00
ATOM	1018	N1	CYT	89	-11.444	-24.214	12.081	1.00	0.00
ATOM	1019	C6	CYT	89	-10.369	-24.933	12.535	1.00	0.00
ATOM	1020	C5	CYT	89	-9.431	-25.419	11.699	1.00	0.00
ATOM	1021	C4	CYT	89	-9.619	-25.158	10.300	1.00	0.00
ATOM	1022	N4	CYT	89	-8.719	-25.582	9.410	1.00	0.00
ATOM	1023	N3	CYT	89	-10.698	-24.501	9.850	1.00	0.00
ATOM	1024	C2	CYT	89	-11.643	-24.029	10.714	1.00	0.00
ATOM	1025	O2	CYT	89	-12.646	-23.469	10.279	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.279	-24.011	15.252	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.095	-24.632	13.869	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.573	-23.463	15.453	1.00	0.00
ATOM	1029	P	THY	90	-15.920	-24.364	15.464	1.00	0.00
ATOM	1030	OP1	THY	90	-15.542	-25.781	15.666	1.00	0.00
ATOM	1031	OP2	THY	90	-16.897	-23.725	16.373	1.00	0.00
ATOM	1032	O5'	THY	90	-16.463	-24.205	13.953	1.00	0.00
ATOM	1033	C5'	THY	90	-16.895	-22.949	13.460	1.00	0.00
ATOM	1034	C4'	THY	90	-17.221	-23.041	11.966	1.00	0.00
ATOM	1035	O4'	THY	90	-16.093	-23.552	11.281	1.00	0.00
ATOM	1036	C1'	THY	90	-16.500	-24.482	10.302	1.00	0.00
ATOM	1037	N1	THY	90	-15.376	-25.428	10.075	1.00	0.00
ATOM	1038	C6	THY	90	-14.882	-26.159	11.128	1.00	0.00
ATOM	1039	C5	THY	90	-13.770	-26.918	11.001	1.00	0.00
ATOM	1040	C7	THY	90	-13.348	-27.711	12.225	1.00	0.00
ATOM	1041	C4	THY	90	-13.033	-26.971	9.760	1.00	0.00
ATOM	1042	O4	THY	90	-11.984	-27.584	9.590	1.00	0.00
ATOM	1043	N3	THY	90	-13.606	-26.239	8.729	1.00	0.00
ATOM	1044	C2	THY	90	-14.769	-25.486	8.820	1.00	0.00
ATOM	1045	O2	THY	90	-15.221	-24.925	7.826	1.00	0.00
ATOM	1046	C3'	THY	90	-18.396	-23.981	11.648	1.00	0.00
ATOM	1047	C2'	THY	90	-17.714	-25.155	10.945	1.00	0.00
ATOM	1048	O3'	THY	90	-19.322	-23.296	10.819	1.00	0.00
ATOM	1049	P	ADE	91	-20.756	-23.921	10.411	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.637	-22.813	9.986	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.194	-24.839	11.486	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.396	-24.804	9.113	1.00	0.00

609				610				
ATOM	1053	C5' ADE	91	-20.129	-24.194	7.866	1.00	0.00
ATOM	1054	C4' ADE	91	-19.553	-25.216	6.882	1.00	0.00
ATOM	1055	O4' ADE	91	-18.320	-25.730	7.333	1.00	0.00
ATOM	1056	C1' ADE	91	-18.063	-26.879	6.562	1.00	0.00
ATOM	1057	N9 ADE	91	-17.000	-27.689	7.184	1.00	0.00
ATOM	1058	C8 ADE	91	-16.885	-28.061	8.497	1.00	0.00
ATOM	1059	N7 ADE	91	-15.780	-28.699	8.777	1.00	0.00
ATOM	1060	C5 ADE	91	-15.135	-28.783	7.545	1.00	0.00
ATOM	1061	C6 ADE	91	-13.903	-29.331	7.136	1.00	0.00
ATOM	1062	N6 ADE	91	-13.039	-29.889	7.989	1.00	0.00
ATOM	1063	N1 ADE	91	-13.588	-29.302	5.827	1.00	0.00
ATOM	1064	C2 ADE	91	-14.439	-28.744	4.970	1.00	0.00
ATOM	1065	N3 ADE	91	-15.599	-28.152	5.233	1.00	0.00
ATOM	1066	C4 ADE	91	-15.894	-28.206	6.559	1.00	0.00
ATOM	1067	C3' ADE	91	-20.429	-26.460	6.663	1.00	0.00
ATOM	1068	C2' ADE	91	-19.402	-27.599	6.619	1.00	0.00
ATOM	1069	O3' ADE	91	-21.164	-26.286	5.461	1.00	0.00
ATOM	1070	P ADE	92	-22.114	-27.430	4.829	1.00	0.00
ATOM	1071	OP1 ADE	92	-23.108	-26.770	3.954	1.00	0.00
ATOM	1072	OP2 ADE	92	-22.567	-28.328	5.914	1.00	0.00
ATOM	1073	O5' ADE	92	-21.089	-28.249	3.889	1.00	0.00
ATOM	1074	C5' ADE	92	-20.429	-27.618	2.808	1.00	0.00
ATOM	1075	C4' ADE	92	-19.368	-28.544	2.205	1.00	0.00
ATOM	1076	O4' ADE	92	-18.412	-28.902	3.191	1.00	0.00
ATOM	1077	C1' ADE	92	-18.053	-30.255	3.011	1.00	0.00
ATOM	1078	N9 ADE	92	-17.482	-30.803	4.261	1.00	0.00
ATOM	1079	C8 ADE	92	-18.036	-30.800	5.517	1.00	0.00
ATOM	1080	N7 ADE	92	-17.269	-31.295	6.447	1.00	0.00
ATOM	1081	C5 ADE	92	-16.127	-31.672	5.753	1.00	0.00
ATOM	1082	C6 ADE	92	-14.924	-32.278	6.158	1.00	0.00
ATOM	1083	N6 ADE	92	-14.689	-32.577	7.436	1.00	0.00
ATOM	1084	N1 ADE	92	-13.993	-32.564	5.229	1.00	0.00
ATOM	1085	C2 ADE	92	-14.246	-32.249	3.960	1.00	0.00
ATOM	1086	N3 ADE	92	-15.328	-31.666	3.452	1.00	0.00
ATOM	1087	C4 ADE	92	-16.249	-31.395	4.416	1.00	0.00
ATOM	1088	C3' ADE	92	-19.948	-29.863	1.670	1.00	0.00
ATOM	1089	C2' ADE	92	-19.409	-30.874	2.683	1.00	0.00
ATOM	1090	O3' ADE	92	-19.457	-30.073	0.357	1.00	0.00
ATOM	1091	P CYT	93	-19.956	-31.293	-0.574	1.00	0.00
ATOM	1092	OP1 CYT	93	-20.091	-30.798	-1.962	1.00	0.00
ATOM	1093	OP2 CYT	93	-21.100	-31.964	0.084	1.00	0.00
ATOM	1094	O5' CYT	93	-18.699	-32.295	-0.517	1.00	0.00
ATOM	1095	C5' CYT	93	-17.507	-32.016	-1.229	1.00	0.00
ATOM	1096	C4' CYT	93	-16.464	-33.091	-0.913	1.00	0.00
ATOM	1097	O4' CYT	93	-16.255	-33.128	0.480	1.00	0.00
ATOM	1098	C1' CYT	93	-15.847	-34.422	0.856	1.00	0.00
ATOM	1099	N1 CYT	93	-16.180	-34.625	2.288	1.00	0.00
ATOM	1100	C6 CYT	93	-17.387	-34.193	2.778	1.00	0.00
ATOM	1101	C5 CYT	93	-17.703	-34.302	4.086	1.00	0.00
ATOM	1102	C4 CYT	93	-16.709	-34.884	4.945	1.00	0.00

(307)

特開2003-135087

611

612

ATOM	1103	N4	CYT	93	-16.895	-34.932	6.264	1.00	0.00
ATOM	1104	N3	CYT	93	-15.545	-35.331	4.456	1.00	0.00
ATOM	1105	C2	CYT	93	-15.250	-35.226	3.131	1.00	0.00
ATOM	1106	O2	CYT	93	-14.179	-35.653	2.706	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.926	-34.506	-1.289	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.693	-35.339	-0.030	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.162	-35.012	-2.363	1.00	0.00

END

HEADER 000000

REMARK	0.00545	1.68026	0.02554	0.01776	1.94175	1.83916
0.00000						

REMARK	2.72072	0.31403	0.46588	1.17938	0.76143
--------	---------	---------	---------	---------	---------

REMARK	0.01096	0.00692	0.00540	0.02021	0.00875
--------	---------	---------	---------	---------	---------

REMARK	116	111	5	0	0	0
0						

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.03779	0.14704	0.03564	0.04441	0.14193	0.14704
--------	---------	---------	---------	---------	---------	---------

REMARK	2.89847	0.23587
--------	---------	---------

REMARK	1	0	1	0	0	0
0						

ATOM	1	N	GLU	1	4.984	-5.056	27.155	1.00	0.00
ATOM	2	CA	GLU	1	5.142	-6.496	27.409	1.00	0.00
ATOM	3	CB	GLU	1	3.784	-7.175	27.629	1.00	0.00
ATOM	4	CG	GLU	1	3.121	-6.688	28.920	1.00	0.00
ATOM	5	CD	GLU	1	1.795	-7.409	29.129	1.00	0.00
ATOM	6	OE1	GLU	1	0.814	-6.965	28.496	1.00	0.00
ATOM	7	OE2	GLU	1	1.799	-8.400	29.889	1.00	0.00
ATOM	8	C	GLU	1	5.957	-7.158	26.295	1.00	0.00
ATOM	9	O	GLU	1	7.174	-7.264	26.426	1.00	0.00
ATOM	10	N	LYS	2	5.290	-7.594	25.214	1.00	0.00
ATOM	11	CA	LYS	2	5.873	-8.264	24.053	1.00	0.00
ATOM	12	CB	LYS	2	6.928	-7.382	23.353	1.00	0.00
ATOM	13	CG	LYS	2	7.624	-8.043	22.152	1.00	0.00
ATOM	14	CD	LYS	2	6.664	-8.437	21.021	1.00	0.00
ATOM	15	CE	LYS	2	7.467	-8.806	19.765	1.00	0.00
ATOM	16	NZ	LYS	2	6.598	-9.195	18.638	1.00	0.00
ATOM	17	C	LYS	2	6.382	-9.652	24.446	1.00	0.00
ATOM	18	O	LYS	2	5.751	-10.653	24.110	1.00	0.00
ATOM	19	N	HIS	3	7.512	-9.701	25.160	1.00	0.00
ATOM	20	CA	HIS	3	8.156	-10.917	25.639	1.00	0.00
ATOM	21	CB	HIS	3	7.412	-11.442	26.877	1.00	0.00
ATOM	22	CG	HIS	3	7.204	-10.385	27.934	1.00	0.00
ATOM	23	ND1	HIS	3	8.235	-9.582	28.399	1.00	0.00
ATOM	24	CE1	HIS	3	7.714	-8.757	29.322	1.00	0.00

613				614				
ATOM	25	NE2 HIS	3	6.407	-8.950	29.507	1.00	0.00
ATOM	26	CD2 HIS	3	6.090	-9.981	28.628	1.00	0.00
ATOM	27	C HIS	3	8.306	-11.937	24.502	1.00	0.00
ATOM	28	O HIS	3	8.635	-11.540	23.387	1.00	0.00
ATOM	29	N ARG	4	8.069	-13.228	24.782	1.00	0.00
ATOM	30	CA ARG	4	8.166	-14.326	23.828	1.00	0.00
ATOM	31	CB ARG	4	7.083	-14.227	22.739	1.00	0.00
ATOM	32	CG ARG	4	5.673	-14.296	23.339	1.00	0.00
ATOM	33	CD ARG	4	4.609	-14.266	22.235	1.00	0.00
ATOM	34	NE ARG	4	3.255	-14.349	22.800	1.00	0.00
ATOM	35	CZ ARG	4	2.123	-14.392	22.078	1.00	0.00
ATOM	36	NH1 ARG	4	0.941	-14.514	22.696	1.00	0.00
ATOM	37	NH2 ARG	4	2.154	-14.314	20.744	1.00	0.00
ATOM	38	C ARG	4	9.577	-14.399	23.241	1.00	0.00
ATOM	39	O ARG	4	9.867	-13.765	22.229	1.00	0.00
ATOM	40	N ALA	5	10.463	-15.181	23.872	1.00	0.00
ATOM	41	CA ALA	5	11.846	-15.353	23.438	1.00	0.00
ATOM	42	CB ALA	5	12.690	-15.828	24.626	1.00	0.00
ATOM	43	C ALA	5	11.948	-16.307	22.239	1.00	0.00
ATOM	44	O ALA	5	12.717	-17.264	22.263	1.00	0.00
ATOM	45	N ARG	6	11.164	-16.027	21.192	1.00	0.00
ATOM	46	CA ARG	6	11.057	-16.738	19.930	1.00	0.00
ATOM	47	CB ARG	6	10.755	-18.240	20.120	1.00	0.00
ATOM	48	CG ARG	6	9.442	-18.511	20.874	1.00	0.00
ATOM	49	CD ARG	6	8.905	-19.915	20.564	1.00	0.00
ATOM	50	NE ARG	6	8.466	-20.019	19.163	1.00	0.00
ATOM	51	CZ ARG	6	7.959	-21.116	18.579	1.00	0.00
ATOM	52	NH1 ARG	6	7.783	-22.255	19.259	1.00	0.00
ATOM	53	NH2 ARG	6	7.627	-21.071	17.287	1.00	0.00
ATOM	54	C ARG	6	9.944	-16.061	19.127	1.00	0.00
ATOM	55	O ARG	6	9.323	-15.108	19.595	1.00	0.00
ATOM	56	N LYS	7	9.682	-16.577	17.926	1.00	0.00
ATOM	57	CA LYS	7	8.636	-16.120	17.027	1.00	0.00
ATOM	58	CB LYS	7	9.258	-15.318	15.873	1.00	0.00
ATOM	59	CG LYS	7	9.768	-13.950	16.344	1.00	0.00
ATOM	60	CD LYS	7	10.505	-13.182	15.238	1.00	0.00
ATOM	61	CE LYS	7	9.667	-13.039	13.960	1.00	0.00
ATOM	62	NZ LYS	7	10.190	-11.973	13.086	1.00	0.00
ATOM	63	C LYS	7	7.933	-17.369	16.499	1.00	0.00
ATOM	64	O LYS	7	8.395	-18.486	16.747	1.00	0.00
ATOM	65	N ARG	8	6.831	-17.195	15.760	1.00	0.00
ATOM	66	CA ARG	8	6.096	-18.298	15.157	1.00	0.00
ATOM	67	CB ARG	8	4.966	-17.767	14.266	1.00	0.00
ATOM	68	CG ARG	8	3.634	-17.755	15.018	1.00	0.00
ATOM	69	CD ARG	8	2.539	-17.193	14.110	1.00	0.00
ATOM	70	NE ARG	8	1.203	-17.483	14.641	1.00	0.00
ATOM	71	CZ ARG	8	0.079	-16.881	14.230	1.00	0.00
ATOM	72	NH1 ARG	8	0.121	-15.963	13.260	1.00	0.00
ATOM	73	NH2 ARG	8	-1.092	-17.166	14.811	1.00	0.00
ATOM	74	C ARG	8	7.057	-19.152	14.331	1.00	0.00

615				616				
ATOM	75	O	ARC	8	8.013	-18.633	13.752	1.00 0.00
ATOM	76	N	GLN	9	6.807	-20.463	14.283	1.00 0.00
ATOM	77	CA	GLN	9	7.635	-21.398	13.536	1.00 0.00
ATOM	78	CB	GLN	9	7.714	-22.780	14.212	1.00 0.00
ATOM	79	CG	GLN	9	6.403	-23.412	14.711	1.00 0.00
ATOM	80	CD	GLN	9	6.663	-24.290	15.932	1.00 0.00
ATOM	81	OE1	GLN	9	6.844	-23.769	17.034	1.00 0.00
ATOM	82	NE2	GLN	9	6.702	-25.610	15.763	1.00 0.00
ATOM	83	C	GLN	9	7.194	-21.371	12.077	1.00 0.00
ATOM	84	O	GLN	9	6.654	-22.341	11.548	1.00 0.00
ATOM	85	N	ALA	10	7.451	-20.216	11.449	1.00 0.00
ATOM	86	CA	ALA	10	7.147	-19.900	10.064	1.00 0.00
ATOM	87	CB	ALA	10	7.629	-18.477	9.763	1.00 0.00
ATOM	88	C	ALA	10	7.792	-20.902	9.113	1.00 0.00
ATOM	89	O	ALA	10	8.641	-21.697	9.517	1.00 0.00
ATOM	90	N	TRP	11	7.376	-20.872	7.848	1.00 0.00
ATOM	91	CA	TRP	11	7.900	-21.794	6.864	1.00 0.00
ATOM	92	CB	TRP	11	6.932	-21.955	5.698	1.00 0.00
ATOM	93	CG	TRP	11	5.614	-22.608	6.007	1.00 0.00
ATOM	94	CD1	TRP	11	4.697	-22.205	6.916	1.00 0.00
ATOM	95	NE1	TRP	11	3.609	-23.055	6.905	1.00 0.00
ATOM	96	CE2	TRP	11	3.777	-24.060	5.976	1.00 0.00
ATOM	97	CZ2	TRP	11	2.978	-25.141	5.577	1.00 0.00
ATOM	98	CH2	TRP	11	3.454	-26.012	4.588	1.00 0.00
ATOM	99	CZ3	TRP	11	4.712	-25.790	4.005	1.00 0.00
ATOM	100	CE3	TRP	11	5.493	-24.693	4.397	1.00 0.00
ATOM	101	CD2	TRP	11	5.052	-23.802	5.394	1.00 0.00
ATOM	102	C	TRP	11	9.278	-21.351	6.386	1.00 0.00
ATOM	103	O	TRP	11	9.511	-20.177	6.105	1.00 0.00
ATOM	104	N	LEU	12	10.182	-22.324	6.296	1.00 0.00
ATOM	105	CA	LEU	12	11.550	-22.139	5.831	1.00 0.00
ATOM	106	CB	LEU	12	12.489	-23.117	6.559	1.00 0.00
ATOM	107	CG	LEU	12	12.906	-22.664	7.970	1.00 0.00
ATOM	108	CD1	LEU	12	11.717	-22.467	8.916	1.00 0.00
ATOM	109	CD2	LEU	12	13.855	-23.710	8.567	1.00 0.00
ATOM	110	C	LEU	12	11.558	-22.410	4.327	1.00 0.00
ATOM	111	O	LEU	12	10.576	-22.936	3.794	1.00 0.00
ATOM	112	N	TRP	13	12.659	-22.071	3.634	1.00 0.00
ATOM	113	CA	TRP	13	12.736	-22.337	2.204	1.00 0.00
ATOM	114	CB	TRP	13	14.063	-21.952	1.526	1.00 0.00
ATOM	115	CG	TRP	13	15.204	-22.845	1.893	1.00 0.00
ATOM	116	CD1	TRP	13	15.801	-22.771	3.082	1.00 0.00
ATOM	117	NE1	TRP	13	16.801	-23.708	3.203	1.00 0.00
ATOM	118	CE2	TRP	13	16.881	-24.468	2.055	1.00 0.00
ATOM	119	CZ2	TRP	13	17.700	-25.542	1.680	1.00 0.00
ATOM	120	CH2	TRP	13	17.516	-26.132	0.421	1.00 0.00
ATOM	121	CZ3	TRP	13	16.526	-25.636	-0.443	1.00 0.00
ATOM	122	CE3	TRP	13	15.715	-24.551	-0.063	1.00 0.00
ATOM	123	CD2	TRP	13	15.868	-23.940	1.196	1.00 0.00
ATOM	124	C	TRP	13	12.482	-23.818	1.988	1.00 0.00

617					618				
ATOM	125	O	TRP	13	11.585	-24.134	1.242	1.00	0.00
ATOM	126	N	GLU	14	13.232	-24.733	2.611	1.00	0.00
ATOM	127	CA	GLU	14	13.047	-26.155	2.382	1.00	0.00
ATOM	128	CB	GLU	14	14.050	-26.964	3.205	1.00	0.00
ATOM	129	CG	GLU	14	14.039	-28.446	2.813	1.00	0.00
ATOM	130	CD	GLU	14	15.210	-29.189	3.448	1.00	0.00
ATOM	131	OE1	GLU	14	14.938	-30.062	4.299	1.00	0.00
ATOM	132	OE2	GLU	14	16.356	-28.863	3.068	1.00	0.00
ATOM	133	C	GLU	14	11.581	-26.573	2.500	1.00	0.00
ATOM	134	O	GLU	14	11.131	-27.397	1.713	1.00	0.00
ATOM	135	N	GLU	15	10.808	-25.988	3.422	1.00	0.00
ATOM	136	CA	GLU	15	9.396	-26.309	3.519	1.00	0.00
ATOM	137	CB	GLU	15	8.809	-25.797	4.839	1.00	0.00
ATOM	138	CG	GLU	15	9.534	-26.400	6.050	1.00	0.00
ATOM	139	CD	GLU	15	8.758	-26.127	7.331	1.00	0.00
ATOM	140	OE1	GLU	15	8.823	-24.973	7.802	1.00	0.00
ATOM	141	OE2	GLU	15	8.062	-27.055	7.801	1.00	0.00
ATOM	142	C	GLU	15	8.648	-25.799	2.273	1.00	0.00
ATOM	143	O	GLU	15	8.041	-26.600	1.567	1.00	0.00
ATOM	144	N	ASP	16	8.687	-24.491	1.972	1.00	0.00
ATOM	145	CA	ASP	16	8.008	-23.932	0.793	1.00	0.00
ATOM	146	CB	ASP	16	8.173	-22.401	0.750	1.00	0.00
ATOM	147	CG	ASP	16	7.202	-21.639	1.653	1.00	0.00
ATOM	148	OD1	ASP	16	6.474	-22.286	2.435	1.00	0.00
ATOM	149	OD2	ASP	16	7.161	-20.397	1.519	1.00	0.00
ATOM	150	C	ASP	16	8.535	-24.576	-0.500	1.00	0.00
ATOM	151	O	ASP	16	7.779	-25.141	-1.283	1.00	0.00
ATOM	152	N	LYS	17	9.848	-24.492	-0.702	1.00	0.00
ATOM	153	CA	LYS	17	10.654	-25.027	-1.787	1.00	0.00
ATOM	154	CB	LYS	17	12.161	-24.891	-1.410	1.00	0.00
ATOM	155	CG	LYS	17	13.072	-25.286	-2.584	1.00	0.00
ATOM	156	CD	LYS	17	13.273	-24.113	-3.554	1.00	0.00
ATOM	157	CE	LYS	17	14.202	-24.482	-4.718	1.00	0.00
ATOM	158	NZ	LYS	17	15.576	-24.785	-4.269	1.00	0.00
ATOM	159	C	LYS	17	10.260	-26.491	-2.069	1.00	0.00
ATOM	160	O	LYS	17	9.891	-26.841	-3.196	1.00	0.00
ATOM	161	N	ASN	18	10.343	-27.360	-1.053	1.00	0.00
ATOM	162	CA	ASN	18	10.018	-28.773	-1.206	1.00	0.00
ATOM	163	CB	ASN	18	10.551	-29.585	-0.018	1.00	0.00
ATOM	164	CG	ASN	18	10.701	-31.074	-0.302	1.00	0.00
ATOM	165	OD1	ASN	18	10.555	-31.527	-1.434	1.00	0.00
ATOM	166	ND2	ASN	18	11.040	-31.840	0.735	1.00	0.00
ATOM	167	C	ASN	18	8.520	-28.972	-1.446	1.00	0.00
ATOM	168	O	ASN	18	8.147	-29.806	-2.266	1.00	0.00
ATOM	169	N	LEU	19	7.651	-28.202	-0.774	1.00	0.00
ATOM	170	CA	LEU	19	6.207	-28.270	-0.978	1.00	0.00
ATOM	171	CB	LEU	19	5.483	-27.276	-0.050	1.00	0.00
ATOM	172	CG	LEU	19	3.986	-27.110	-0.353	1.00	0.00
ATOM	173	CD1	LEU	19	3.243	-28.438	-0.234	1.00	0.00
ATOM	174	CD2	LEU	19	3.360	-26.085	0.600	1.00	0.00

(311)

特開2003-135087

619

620

ATOM	175	C	LEU	19	5.901	-28.001	-2.455	1.00	0.00
ATOM	176	O	LEU	19	5.130	-28.732	-3.068	1.00	0.00
ATOM	177	N	ARG	20	6.523	-26.965	-3.032	1.00	0.00
ATOM	178	CA	ARG	20	6.379	-26.586	-4.432	1.00	0.00
ATOM	179	CB	ARG	20	7.240	-25.340	-4.700	1.00	0.00
ATOM	180	CG	ARG	20	6.886	-24.613	-6.002	1.00	0.00
ATOM	181	CD	ARG	20	7.778	-23.372	-6.162	1.00	0.00
ATOM	182	NE	ARG	20	7.428	-22.596	-7.365	1.00	0.00
ATOM	183	CZ	ARG	20	6.637	-21.507	-7.420	1.00	0.00
ATOM	184	NH1	ARG	20	6.358	-20.950	-8.606	1.00	0.00
ATOM	185	NH2	ARG	20	6.100	-20.974	-6.316	1.00	0.00
ATOM	186	C	ARG	20	6.749	-27.784	-5.307	1.00	0.00
ATOM	187	O	ARG	20	5.993	-28.163	-6.204	1.00	0.00
ATOM	188	N	SER	21	7.900	-28.400	-5.016	1.00	0.00
ATOM	189	CA	SER	21	8.375	-29.584	-5.721	1.00	0.00
ATOM	190	CB	SER	21	9.760	-29.969	-5.183	1.00	0.00
ATOM	191	OG	SER	21	10.621	-28.845	-5.174	1.00	0.00
ATOM	192	C	SER	21	7.370	-30.744	-5.584	1.00	0.00
ATOM	193	O	SER	21	7.175	-31.529	-6.517	1.00	0.00
ATOM	194	N	GLY	22	6.732	-30.848	-4.412	1.00	0.00
ATOM	195	CA	GLY	22	5.742	-31.859	-4.086	1.00	0.00
ATOM	196	C	GLY	22	4.494	-31.689	-4.939	1.00	0.00
ATOM	197	O	GLY	22	4.091	-32.630	-5.615	1.00	0.00
ATOM	198	N	VAL	23	3.888	-30.499	-4.929	1.00	0.00
ATOM	199	CA	VAL	23	2.701	-30.219	-5.723	1.00	0.00
ATOM	200	CB	VAL	23	2.193	-28.790	-5.460	1.00	0.00
ATOM	201	CG1	VAL	23	1.060	-28.449	-6.437	1.00	0.00
ATOM	202	CG2	VAL	23	1.665	-28.662	-4.026	1.00	0.00
ATOM	203	C	VAL	23	3.004	-30.452	-7.202	1.00	0.00
ATOM	204	O	VAL	23	2.189	-31.040	-7.909	1.00	0.00
ATOM	205	N	ARG	24	4.171	-30.000	-7.673	1.00	0.00
ATOM	206	CA	ARG	24	4.566	-30.166	-9.062	1.00	0.00
ATOM	207	CB	ARG	24	5.939	-29.512	-9.289	1.00	0.00
ATOM	208	CG	ARG	24	6.481	-29.673	-10.718	1.00	0.00
ATOM	209	CD	ARG	24	5.518	-29.125	-11.779	1.00	0.00
ATOM	210	NE	ARG	24	6.111	-29.191	-13.122	1.00	0.00
ATOM	211	CZ	ARG	24	5.450	-28.924	-14.261	1.00	0.00
ATOM	212	NH1	ARG	24	4.162	-28.556	-14.226	1.00	0.00
ATOM	213	NH2	ARG	24	6.081	-29.027	-15.438	1.00	0.00
ATOM	214	C	ARG	24	4.558	-31.637	-9.489	1.00	0.00
ATOM	215	O	ARG	24	3.998	-31.965	-10.533	1.00	0.00
ATOM	216	N	LYS	25	5.190	-32.521	-8.707	1.00	0.00
ATOM	217	CA	LYS	25	5.279	-33.939	-9.054	1.00	0.00
ATOM	218	CB	LYS	25	6.517	-34.547	-8.388	1.00	0.00
ATOM	219	CG	LYS	25	7.804	-33.941	-8.967	1.00	0.00
ATOM	220	CD	LYS	25	9.053	-34.720	-8.534	1.00	0.00
ATOM	221	CE	LYS	25	9.187	-34.867	-7.014	1.00	0.00
ATOM	222	NZ	LYS	25	9.152	-33.566	-6.324	1.00	0.00
ATOM	223	C	LYS	25	4.040	-34.778	-8.720	1.00	0.00
ATOM	224	O	LYS	25	3.704	-35.684	-9.478	1.00	0.00

(312)

特開2003-135087

621					622				
ATOM	225	N	TYR	26	3.394	-34.528	-7.578	1.00	0.00
ATOM	226	CA	TYR	26	2.269	-35.321	-7.082	1.00	0.00
ATOM	227	CB	TYR	26	2.463	-35.563	-5.576	1.00	0.00
ATOM	228	CG	TYR	26	3.896	-35.883	-5.169	1.00	0.00
ATOM	229	CD1	TYR	26	4.691	-36.745	-5.950	1.00	0.00
ATOM	230	CE1	TYR	26	6.017	-37.016	-5.577	1.00	0.00
ATOM	231	CZ	TYR	26	6.556	-36.435	-4.417	1.00	0.00
ATOM	232	OH	TYR	26	7.844	-36.702	-4.061	1.00	0.00
ATOM	233	CE2	TYR	26	5.766	-35.581	-3.632	1.00	0.00
ATOM	234	CD2	TYR	26	4.441	-35.306	-4.008	1.00	0.00
ATOM	235	C	TYR	26	0.883	-34.751	-7.396	1.00	0.00
ATOM	236	O	TYR	26	-0.076	-35.522	-7.444	1.00	0.00
ATOM	237	N	GLY	27	0.777	-33.433	-7.607	1.00	0.00
ATOM	238	CA	GLY	27	-0.468	-32.740	-7.922	1.00	0.00
ATOM	239	C	GLY	27	-0.971	-31.913	-6.739	1.00	0.00
ATOM	240	O	GLY	27	-0.676	-32.225	-5.585	1.00	0.00
ATOM	241	N	GLU	28	-1.739	-30.853	-7.030	1.00	0.00
ATOM	242	CA	GLU	28	-2.315	-29.979	-6.015	1.00	0.00
ATOM	243	CB	GLU	28	-2.741	-28.635	-6.640	1.00	0.00
ATOM	244	CG	GLU	28	-3.175	-27.611	-5.576	1.00	0.00
ATOM	245	CD	GLU	28	-3.467	-26.222	-6.142	1.00	0.00
ATOM	246	OE1	GLU	28	-2.599	-25.682	-6.863	1.00	0.00
ATOM	247	OE2	GLU	28	-4.528	-25.661	-5.795	1.00	0.00
ATOM	248	C	GLU	28	-3.485	-30.709	-5.350	1.00	0.00
ATOM	249	O	GLU	28	-4.105	-31.581	-5.957	1.00	0.00
ATOM	250	N	GLY	29	-3.780	-30.355	-4.097	1.00	0.00
ATOM	251	CA	GLY	29	-4.864	-30.960	-3.343	1.00	0.00
ATOM	252	C	GLY	29	-4.561	-32.403	-2.954	1.00	0.00
ATOM	253	O	GLY	29	-5.479	-33.206	-2.804	1.00	0.00
ATOM	254	N	ASN	30	-3.275	-32.740	-2.793	1.00	0.00
ATOM	255	CA	ASN	30	-2.812	-34.070	-2.419	1.00	0.00
ATOM	256	CB	ASN	30	-2.156	-34.773	-3.615	1.00	0.00
ATOM	257	CG	ASN	30	-3.048	-35.014	-4.834	1.00	0.00
ATOM	258	OD1	ASN	30	-2.534	-35.271	-5.919	1.00	0.00
ATOM	259	ND2	ASN	30	-4.371	-34.990	-4.689	1.00	0.00
ATOM	260	C	ASN	30	-1.822	-33.902	-1.272	1.00	0.00
ATOM	261	O	ASN	30	-0.678	-34.360	-1.337	1.00	0.00
ATOM	262	N	TRP	31	-2.272	-33.223	-0.215	1.00	0.00
ATOM	263	CA	TRP	31	-1.467	-32.940	0.963	1.00	0.00
ATOM	264	CB	TRP	31	-2.161	-31.908	1.864	1.00	0.00
ATOM	265	CG	TRP	31	-2.967	-30.919	1.080	1.00	0.00
ATOM	266	CD1	TRP	31	-4.314	-30.799	1.074	1.00	0.00
ATOM	267	NE1	TRP	31	-4.690	-29.799	0.196	1.00	0.00
ATOM	268	CE2	TRP	31	-3.587	-29.226	-0.401	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.434	-28.204	-1.345	1.00	0.00
ATOM	270	CH2	TRP	31	-2.144	-27.852	-1.761	1.00	0.00
ATOM	271	CZ3	TRP	31	-1.023	-28.516	-1.241	1.00	0.00
ATOM	272	CE3	TRP	31	-1.187	-29.543	-0.299	1.00	0.00
ATOM	273	CD2	TRP	31	-2.472	-29.922	0.147	1.00	0.00
ATOM	274	C	TRP	31	-1.047	-34.238	1.652	1.00	0.00

(313)

特開2003-135087

623

624

ATOM	275	O	TRP	31	-0.002	-34.270	2.293	1.00	0.00
ATOM	276	N	SER	32	-1.829	-35.313	1.487	1.00	0.00
ATOM	277	CA	SER	32	-1.519	-36.626	2.030	1.00	0.00
ATOM	278	CB	SER	32	-2.685	-37.589	1.772	1.00	0.00
ATOM	279	OG	SER	32	-3.068	-37.569	0.409	1.00	0.00
ATOM	280	C	SER	32	-0.230	-37.126	1.376	1.00	0.00
ATOM	281	O	SER	32	0.754	-37.387	2.067	1.00	0.00
ATOM	282	N	LYS	33	-0.240	-37.238	0.040	1.00	0.00
ATOM	283	CA	LYS	33	0.911	-37.673	-0.742	1.00	0.00
ATOM	284	CB	LYS	33	0.679	-37.479	-2.251	1.00	0.00
ATOM	285	CG	LYS	33	-0.478	-38.262	-2.881	1.00	0.00
ATOM	286	CD	LYS	33	-0.446	-37.954	-4.389	1.00	0.00
ATOM	287	CE	LYS	33	-1.702	-38.408	-5.138	1.00	0.00
ATOM	288	NZ	LYS	33	-1.727	-37.849	-6.507	1.00	0.00
ATOM	289	C	LYS	33	2.128	-36.840	-0.344	1.00	0.00
ATOM	290	O	LYS	33	3.149	-37.379	0.075	1.00	0.00
ATOM	291	N	ILE	34	2.002	-35.516	-0.489	1.00	0.00
ATOM	292	CA	ILE	34	3.051	-34.555	-0.193	1.00	0.00
ATOM	293	CB	ILE	34	2.513	-33.131	-0.414	1.00	0.00
ATOM	294	CG2	ILE	34	3.505	-32.082	0.099	1.00	0.00
ATOM	295	CG1	ILE	34	2.245	-32.899	-1.913	1.00	0.00
ATOM	296	CD1	ILE	34	1.358	-31.686	-2.188	1.00	0.00
ATOM	297	C	ILE	34	3.627	-34.771	1.208	1.00	0.00
ATOM	298	O	ILE	34	4.843	-34.840	1.346	1.00	0.00
ATOM	299	N	LEU	35	2.776	-34.879	2.232	1.00	0.00
ATOM	300	CA	LEU	35	3.193	-35.086	3.615	1.00	0.00
ATOM	301	CB	LEU	35	1.956	-35.016	4.526	1.00	0.00
ATOM	302	CG	LEU	35	2.258	-35.069	6.035	1.00	0.00
ATOM	303	CD1	LEU	35	1.177	-34.284	6.789	1.00	0.00
ATOM	304	CD2	LEU	35	2.267	-36.503	6.583	1.00	0.00
ATOM	305	C	LEU	35	3.968	-36.396	3.774	1.00	0.00
ATOM	306	O	LEU	35	4.963	-36.439	4.495	1.00	0.00
ATOM	307	N	LEU	36	3.519	-37.470	3.113	1.00	0.00
ATOM	308	CA	LEU	36	4.173	-38.769	3.201	1.00	0.00
ATOM	309	CB	LEU	36	3.284	-39.855	2.575	1.00	0.00
ATOM	310	CG	LEU	36	2.003	-40.131	3.385	1.00	0.00
ATOM	311	CD1	LEU	36	1.016	-40.917	2.515	1.00	0.00
ATOM	312	CD2	LEU	36	2.294	-40.929	4.662	1.00	0.00
ATOM	313	C	LEU	36	5.550	-38.729	2.536	1.00	0.00
ATOM	314	O	LEU	36	6.536	-39.157	3.133	1.00	0.00
ATOM	315	N	HIS	37	5.618	-38.220	1.302	1.00	0.00
ATOM	316	CA	HIS	37	6.856	-38.122	0.543	1.00	0.00
ATOM	317	CB	HIS	37	6.559	-37.628	-0.878	1.00	0.00
ATOM	318	CG	HIS	37	5.731	-38.569	-1.714	1.00	0.00
ATOM	319	ND1	HIS	37	6.123	-39.870	-1.993	1.00	0.00
ATOM	320	CE1	HIS	37	5.164	-40.420	-2.757	1.00	0.00
ATOM	321	NE2	HIS	37	4.157	-39.582	-3.012	1.00	0.00
ATOM	322	CD2	HIS	37	4.523	-38.415	-2.350	1.00	0.00
ATOM	323	C	HIS	37	7.855	-37.176	1.208	1.00	0.00
ATOM	324	O	HIS	37	9.029	-37.515	1.342	1.00	0.00

625				626				
ATOM	325	N	TYR	38	7.387	-35.986	1.595	1.00 0.00
ATOM	326	CA	TYR	38	8.179	-34.931	2.203	1.00 0.00
ATOM	327	CB	TYR	38	8.203	-33.720	1.263	1.00 0.00
ATOM	328	CG	TYR	38	8.751	-33.973	-0.129	1.00 0.00
ATOM	329	CD1	TYR	38	8.098	-33.418	-1.247	1.00 0.00
ATOM	330	CE1	TYR	38	8.604	-33.637	-2.538	1.00 0.00
ATOM	331	CZ	TYR	38	9.764	-34.408	-2.718	1.00 0.00
ATOM	332	OH	TYR	38	10.253	-34.615	-3.974	1.00 0.00
ATOM	333	CE2	TYR	38	10.417	-34.966	-1.607	1.00 0.00
ATOM	334	CD2	TYR	38	9.913	-34.747	-0.317	1.00 0.00
ATOM	335	C	TYR	38	7.598	-34.510	3.548	1.00 0.00
ATOM	336	O	TYR	38	6.466	-34.041	3.621	1.00 0.00
ATOM	337	N	LYS	39	8.393	-34.659	4.609	1.00 0.00
ATOM	338	CA	LYS	39	8.002	-34.262	5.949	1.00 0.00
ATOM	339	CB	LYS	39	8.762	-35.108	6.975	1.00 0.00
ATOM	340	CG	LYS	39	8.362	-36.585	6.837	1.00 0.00
ATOM	341	CD	LYS	39	9.053	-37.440	7.902	1.00 0.00
ATOM	342	CE	LYS	39	8.640	-38.909	7.738	1.00 0.00
ATOM	343	NZ	LYS	39	9.289	-39.774	8.741	1.00 0.00
ATOM	344	C	LYS	39	8.259	-32.761	6.117	1.00 0.00
ATOM	345	O	LYS	39	8.942	-32.145	5.298	1.00 0.00
ATOM	346	N	PHE	40	7.696	-32.179	7.177	1.00 0.00
ATOM	347	CA	PHE	40	7.798	-30.762	7.499	1.00 0.00
ATOM	348	CB	PHE	40	6.531	-30.069	6.989	1.00 0.00
ATOM	349	CG	PHE	40	6.292	-30.156	5.494	1.00 0.00
ATOM	350	CD1	PHE	40	5.433	-31.135	4.959	1.00 0.00
ATOM	351	CE1	PHE	40	5.220	-31.199	3.571	1.00 0.00
ATOM	352	CZ	PHE	40	5.861	-30.288	2.710	1.00 0.00
ATOM	353	CE2	PHE	40	6.719	-29.317	3.247	1.00 0.00
ATOM	354	CD2	PHE	40	6.934	-29.249	4.634	1.00 0.00
ATOM	355	C	PHE	40	7.926	-30.604	9.015	1.00 0.00
ATOM	356	O	PHE	40	7.901	-31.601	9.736	1.00 0.00
ATOM	357	N	ASN	41	8.052	-29.362	9.503	1.00 0.00
ATOM	358	CA	ASN	41	8.181	-29.076	10.931	1.00 0.00
ATOM	359	CB	ASN	41	8.211	-27.558	11.182	1.00 0.00
ATOM	360	CG	ASN	41	9.436	-26.844	10.616	1.00 0.00
ATOM	361	OD1	ASN	41	10.367	-27.471	10.117	1.00 0.00
ATOM	362	ND2	ASN	41	9.442	-25.514	10.705	1.00 0.00
ATOM	363	C	ASN	41	7.033	-29.698	11.730	1.00 0.00
ATOM	364	O	ASN	41	7.255	-30.502	12.632	1.00 0.00
ATOM	365	N	ASN	42	5.801	-29.301	11.396	1.00 0.00
ATOM	366	CA	ASN	42	4.564	-29.734	12.038	1.00 0.00
ATOM	367	CB	ASN	42	4.457	-29.029	13.403	1.00 0.00
ATOM	368	CG	ASN	42	4.597	-27.507	13.277	1.00 0.00
ATOM	369	OD1	ASN	42	5.675	-26.960	13.492	1.00 0.00
ATOM	370	ND2	ASN	42	3.522	-26.809	12.911	1.00 0.00
ATOM	371	C	ASN	42	3.374	-29.372	11.142	1.00 0.00
ATOM	372	O	ASN	42	2.323	-28.955	11.629	1.00 0.00
ATOM	373	N	ARG	43	3.546	-29.495	9.822	1.00 0.00
ATOM	374	CA	ARG	43	2.529	-29.110	8.859	1.00 0.00

(315)

特開2003-135087

627

628

ATOM	375	CB	ARG	43	3.174	-28.596	7.568	1.00	0.00
ATOM	376	CG	ARG	43	3.844	-27.223	7.712	1.00	0.00
ATOM	377	CD	ARG	43	4.824	-27.077	8.868	1.00	0.00
ATOM	378	NE	ARG	43	5.708	-25.922	8.676	1.00	0.00
ATOM	379	CZ	ARG	43	5.682	-24.777	9.377	1.00	0.00
ATOM	380	NH1	ARG	43	6.768	-24.003	9.375	1.00	0.00
ATOM	381	NH2	ARG	43	4.597	-24.427	10.086	1.00	0.00
ATOM	382	C	ARG	43	1.563	-30.252	8.566	1.00	0.00
ATOM	383	O	ARG	43	1.945	-31.278	8.009	1.00	0.00
ATOM	384	N	THR	44	0.303	-30.031	8.937	1.00	0.00
ATOM	385	CA	THR	44	-0.821	-30.927	8.734	1.00	0.00
ATOM	386	CB	THR	44	-1.880	-30.567	9.788	1.00	0.00
ATOM	387	CG2	THR	44	-1.363	-30.801	11.212	1.00	0.00
ATOM	388	OG1	THR	44	-2.232	-29.202	9.631	1.00	0.00
ATOM	389	C	THR	44	-1.404	-30.693	7.337	1.00	0.00
ATOM	390	O	THR	44	-0.975	-29.786	6.622	1.00	0.00
ATOM	391	N	SER	45	-2.416	-31.484	6.958	1.00	0.00
ATOM	392	CA	SER	45	-3.115	-31.323	5.688	1.00	0.00
ATOM	393	CB	SER	45	-4.230	-32.371	5.577	1.00	0.00
ATOM	394	OG	SER	45	-4.994	-32.186	4.404	1.00	0.00
ATOM	395	C	SER	45	-3.667	-29.891	5.617	1.00	0.00
ATOM	396	O	SER	45	-3.578	-29.236	4.581	1.00	0.00
ATOM	397	N	VAL	46	-4.209	-29.407	6.745	1.00	0.00
ATOM	398	CA	VAL	46	-4.752	-28.065	6.898	1.00	0.00
ATOM	399	CB	VAL	46	-5.360	-27.906	8.304	1.00	0.00
ATOM	400	CG1	VAL	46	-5.833	-26.468	8.546	1.00	0.00
ATOM	401	CG2	VAL	46	-6.550	-28.856	8.494	1.00	0.00
ATOM	402	C	VAL	46	-3.655	-27.029	6.636	1.00	0.00
ATOM	403	O	VAL	46	-3.843	-26.141	5.809	1.00	0.00
ATOM	404	N	MET	47	-2.513	-27.144	7.331	1.00	0.00
ATOM	405	CA	MET	47	-1.393	-26.223	7.154	1.00	0.00
ATOM	406	CB	MET	47	-0.208	-26.662	8.018	1.00	0.00
ATOM	407	CG	MET	47	-0.356	-26.256	9.484	1.00	0.00
ATOM	408	SD	MET	47	-0.019	-24.501	9.777	1.00	0.00
ATOM	409	CE	MET	47	0.107	-24.527	11.576	1.00	0.00
ATOM	410	C	MET	47	-0.969	-26.160	5.687	1.00	0.00
ATOM	411	O	MET	47	-0.850	-25.077	5.124	1.00	0.00
ATOM	412	N	LEU	48	-0.745	-27.325	5.071	1.00	0.00
ATOM	413	CA	LEU	48	-0.341	-27.441	3.676	1.00	0.00
ATOM	414	CB	LEU	48	-0.202	-28.930	3.318	1.00	0.00
ATOM	415	CG	LEU	48	1.042	-29.549	3.974	1.00	0.00
ATOM	416	CD1	LEU	48	0.911	-31.063	4.170	1.00	0.00
ATOM	417	CD2	LEU	48	2.281	-29.294	3.113	1.00	0.00
ATOM	418	C	LEU	48	-1.348	-26.721	2.773	1.00	0.00
ATOM	419	O	LEU	48	-0.965	-25.888	1.952	1.00	0.00
ATOM	420	N	LYS	49	-2.633	-27.038	2.945	1.00	0.00
ATOM	421	CA	LYS	49	-3.744	-26.459	2.207	1.00	0.00
ATOM	422	CB	LYS	49	-5.047	-27.062	2.765	1.00	0.00
ATOM	423	CG	LYS	49	-6.357	-26.302	2.509	1.00	0.00
ATOM	424	CD	LYS	49	-7.024	-26.595	1.167	1.00	0.00

(316)

特開2003-135087

629					630				
ATOM	425	CE	LYS	49	-6.373	-25.970	-0.069	1.00	0.00
ATOM	426	NZ	LYS	49	-7.164	-26.262	-1.284	1.00	0.00
ATOM	427	C	LYS	49	-3.741	-24.928	2.286	1.00	0.00
ATOM	428	O	LYS	49	-3.656	-24.256	1.257	1.00	0.00
ATOM	429	N	ASP	50	-3.866	-24.373	3.499	1.00	0.00
ATOM	430	CA	ASP	50	-3.940	-22.931	3.685	1.00	0.00
ATOM	431	CB	ASP	50	-4.449	-22.566	5.085	1.00	0.00
ATOM	432	CG	ASP	50	-3.373	-22.559	6.158	1.00	0.00
ATOM	433	OD1	ASP	50	-3.443	-23.422	7.059	1.00	0.00
ATOM	434	OD2	ASP	50	-2.554	-21.617	6.106	1.00	0.00
ATOM	435	C	ASP	50	-2.654	-22.215	3.262	1.00	0.00
ATOM	436	O	ASP	50	-2.726	-21.143	2.667	1.00	0.00
ATOM	437	N	ARG	51	-1.480	-22.796	3.533	1.00	0.00
ATOM	438	CA	ARG	51	-0.215	-22.195	3.133	1.00	0.00
ATOM	439	CB	ARG	51	0.973	-22.932	3.750	1.00	0.00
ATOM	440	CG	ARG	51	2.212	-22.037	3.641	1.00	0.00
ATOM	441	CD	ARG	51	2.980	-22.217	2.335	1.00	0.00
ATOM	442	NE	ARG	51	3.970	-21.154	2.218	1.00	0.00
ATOM	443	CZ	ARG	51	3.761	-19.885	1.834	1.00	0.00
ATOM	444	NH1	ARG	51	2.531	-19.456	1.521	1.00	0.00
ATOM	445	NH2	ARG	51	4.802	-19.048	1.753	1.00	0.00
ATOM	446	C	ARG	51	-0.151	-22.107	1.613	1.00	0.00
ATOM	447	O	ARG	51	0.217	-21.057	1.084	1.00	0.00
ATOM	448	N	TRP	52	-0.508	-23.186	0.903	1.00	0.00
ATOM	449	CA	TRP	52	-0.494	-23.187	-0.544	1.00	0.00
ATOM	450	CB	TRP	52	-0.845	-24.578	-1.054	1.00	0.00
ATOM	451	CG	TRP	52	-0.609	-24.749	-2.514	1.00	0.00
ATOM	452	CD1	TRP	52	-1.562	-24.826	-3.465	1.00	0.00
ATOM	453	NE1	TRP	52	-0.973	-24.995	-4.700	1.00	0.00
ATOM	454	CE2	TRP	52	0.400	-25.025	-4.597	1.00	0.00
ATOM	455	CZ2	TRP	52	1.423	-25.169	-5.538	1.00	0.00
ATOM	456	CH2	TRP	52	2.757	-25.149	-5.110	1.00	0.00
ATOM	457	CZ3	TRP	52	3.050	-24.995	-3.743	1.00	0.00
ATOM	458	CE3	TRP	52	2.013	-24.857	-2.804	1.00	0.00
ATOM	459	CD2	TRP	52	0.662	-24.866	-3.208	1.00	0.00
ATOM	460	C	TRP	52	-1.460	-22.134	-1.079	1.00	0.00
ATOM	461	O	TRP	52	-1.129	-21.410	-2.015	1.00	0.00
ATOM	462	N	ARG	53	-2.646	-22.038	-0.463	1.00	0.00
ATOM	463	CA	ARG	53	-3.654	-21.051	-0.821	1.00	0.00
ATOM	464	CB	ARG	53	-4.888	-21.248	0.069	1.00	0.00
ATOM	465	CG	ARG	53	-6.004	-20.234	-0.211	1.00	0.00
ATOM	466	CD	ARG	53	-7.223	-20.515	0.675	1.00	0.00
ATOM	467	NE	ARG	53	-6.904	-20.390	2.107	1.00	0.00
ATOM	468	CZ	ARG	53	-7.783	-20.594	3.102	1.00	0.00
ATOM	469	NH1	ARG	53	-7.410	-20.453	4.380	1.00	0.00
ATOM	470	NH2	ARG	53	-9.046	-20.932	2.825	1.00	0.00
ATOM	471	C	ARG	53	-3.043	-19.651	-0.693	1.00	0.00
ATOM	472	O	ARG	53	-3.142	-18.852	-1.621	1.00	0.00
ATOM	473	N	THR	54	-2.390	-19.361	0.441	1.00	0.00
ATOM	474	CA	THR	54	-1.732	-18.082	0.674	1.00	0.00

(317)

特開2003-135087

631

632

ATOM	475	CB	THR	54	-1.121	-18.031	2.083	1.00	0.00
ATOM	476	CG2	THR	54	-0.394	-16.704	2.307	1.00	0.00
ATOM	477	OG1	THR	54	-2.135	-18.159	3.057	1.00	0.00
ATOM	478	C	THR	54	-0.670	-17.831	-0.400	1.00	0.00
ATOM	479	O	THR	54	-0.568	-16.722	-0.914	1.00	0.00
ATOM	480	N	MET	55	0.122	-18.851	-0.749	1.00	0.00
ATOM	481	CA	MET	55	1.157	-18.721	-1.763	1.00	0.00
ATOM	482	CB	MET	55	1.947	-20.038	-1.875	1.00	0.00
ATOM	483	CG	MET	55	3.403	-19.772	-2.272	1.00	0.00
ATOM	484	SD	MET	55	4.453	-21.230	-2.493	1.00	0.00
ATOM	485	CE	MET	55	3.762	-21.844	-4.044	1.00	0.00
ATOM	486	C	MET	55	0.525	-18.294	-3.095	1.00	0.00
ATOM	487	O	MET	55	0.932	-17.305	-3.703	1.00	0.00
ATOM	488	N	LYS	56	-0.489	-19.038	-3.545	1.00	0.00
ATOM	489	CA	LYS	56	-1.210	-18.771	-4.782	1.00	0.00
ATOM	490	CB	LYS	56	-2.220	-19.903	-5.030	1.00	0.00
ATOM	491	CG	LYS	56	-1.522	-21.058	-5.742	1.00	0.00
ATOM	492	CD	LYS	56	-2.382	-22.316	-5.890	1.00	0.00
ATOM	493	CE	LYS	56	-3.639	-22.088	-6.736	1.00	0.00
ATOM	494	NZ	LYS	56	-4.232	-23.370	-7.170	1.00	0.00
ATOM	495	C	LYS	56	-1.963	-17.434	-4.760	1.00	0.00
ATOM	496	O	LYS	56	-2.181	-16.876	-5.832	1.00	0.00
ATOM	497	N	LYS	57	-2.361	-16.937	-3.572	1.00	0.00
ATOM	498	CA	LYS	57	-3.104	-15.688	-3.355	1.00	0.00
ATOM	499	CB	LYS	57	-2.928	-15.209	-1.908	1.00	0.00
ATOM	500	CG	LYS	57	-3.916	-14.103	-1.503	1.00	0.00
ATOM	501	CD	LYS	57	-3.477	-13.445	-0.183	1.00	0.00
ATOM	502	CE	LYS	57	-2.443	-12.327	-0.397	1.00	0.00
ATOM	503	NZ	LYS	57	-3.069	-11.069	-0.848	1.00	0.00
ATOM	504	C	LYS	57	-2.669	-14.581	-4.313	1.00	0.00
ATOM	505	O	LYS	57	-3.514	-13.890	-4.878	1.00	0.00
ATOM	506	N	LEU	58	-1.351	-14.430	-4.496	1.00	0.00
ATOM	507	CA	LEU	58	-0.780	-13.469	-5.421	1.00	0.00
ATOM	508	CB	LEU	58	0.665	-13.146	-4.996	1.00	0.00
ATOM	509	CG	LEU	58	0.776	-12.565	-3.574	1.00	0.00
ATOM	510	CD1	LEU	58	2.256	-12.405	-3.211	1.00	0.00
ATOM	511	CD2	LEU	58	0.068	-11.211	-3.435	1.00	0.00
ATOM	512	C	LEU	58	-0.918	-14.121	-6.803	1.00	0.00
ATOM	513	O	LEU	58	-2.026	-14.184	-7.330	1.00	0.00
ATOM	514	N	LYS	59	0.174	-14.638	-7.376	1.00	0.00
ATOM	515	CA	LYS	59	0.206	-15.358	-8.647	1.00	0.00
ATOM	516	CB	LYS	59	0.217	-14.403	-9.861	1.00	0.00
ATOM	517	CG	LYS	59	-1.071	-13.606	-10.134	1.00	0.00
ATOM	518	CD	LYS	59	-2.332	-14.453	-10.385	1.00	0.00
ATOM	519	CE	LYS	59	-2.244	-15.309	-11.654	1.00	0.00
ATOM	520	NZ	LYS	59	-3.510	-16.024	-11.910	1.00	0.00
ATOM	521	C	LYS	59	1.460	-16.243	-8.631	1.00	0.00
ATOM	522	O	LYS	59	2.138	-16.385	-9.647	1.00	0.00
ATOM	523	N	LEU	60	1.787	-16.829	-7.470	1.00	0.00
ATOM	524	CA	LEU	60	2.980	-17.654	-7.324	1.00	0.00

(318)

特開2003-135087

633

634

ATOM	525	CB	LEU	60	3.414	-17.768	-5.855	1.00	0.00
ATOM	526	CG	LEU	60	3.692	-16.393	-5.206	1.00	0.00
ATOM	527	CD1	LEU	60	4.200	-16.560	-3.769	1.00	0.00
ATOM	528	CD2	LEU	60	4.731	-15.571	-5.983	1.00	0.00
ATOM	529	C	LEU	60	2.905	-18.994	-8.059	1.00	0.00
ATOM	530	O	LEU	60	3.950	-19.586	-8.339	1.00	0.00
ATOM	531	N	ILE	61	1.694	-19.459	-8.386	1.00	0.00
ATOM	532	CA	ILE	61	1.417	-20.681	-9.135	1.00	0.00
ATOM	533	CB	ILE	61	1.190	-21.904	-8.213	1.00	0.00
ATOM	534	CG2	ILE	61	0.898	-23.184	-9.011	1.00	0.00
ATOM	535	CG1	ILE	61	2.308	-22.142	-7.194	1.00	0.00
ATOM	536	CD1	ILE	61	3.547	-22.784	-7.806	1.00	0.00
ATOM	537	C	ILE	61	0.170	-20.389	-9.975	1.00	0.00
ATOM	538	O	ILE	61	-0.590	-19.470	-9.657	1.00	0.00
ATOM	539	N	SER	62	-0.044	-21.174	-11.036	1.00	0.00
ATOM	540	CA	SER	62	-1.201	-21.049	-11.906	1.00	0.00
ATOM	541	CB	SER	62	-1.147	-22.136	-12.985	1.00	0.00
ATOM	542	OG	SER	62	-0.822	-23.387	-12.413	1.00	0.00
ATOM	543	C	SER	62	-2.482	-21.129	-11.068	1.00	0.00
ATOM	544	O	SER	62	-2.560	-21.882	-10.096	1.00	0.00
ATOM	545	N	SER	63	-3.475	-20.323	-11.443	1.00	0.00
ATOM	546	CA	SER	63	-4.755	-20.222	-10.763	1.00	0.00
ATOM	547	CB	SER	63	-4.727	-19.063	-9.750	1.00	0.00
ATOM	548	OG	SER	63	-3.696	-18.129	-10.034	1.00	0.00
ATOM	549	C	SER	63	-5.854	-20.052	-11.809	1.00	0.00
ATOM	550	O	SER	63	-5.643	-19.410	-12.839	1.00	0.00
ATOM	551	N	ASP	64	-7.014	-20.648	-11.527	1.00	0.00
ATOM	552	CA	ASP	64	-8.211	-20.648	-12.353	1.00	0.00
ATOM	553	CB	ASP	64	-9.159	-21.721	-11.799	1.00	0.00
ATOM	554	CG	ASP	64	-9.512	-21.424	-10.345	1.00	0.00
ATOM	555	OD1	ASP	64	-10.629	-20.912	-10.119	1.00	0.00
ATOM	556	OD2	ASP	64	-8.626	-21.677	-9.497	1.00	0.00
ATOM	557	C	ASP	64	-8.897	-19.279	-12.354	1.00	0.00
ATOM	558	O	ASP	64	-8.491	-18.365	-11.637	1.00	0.00
ATOM	559	N	SER	65	-9.947	-19.154	-13.174	1.00	0.00
ATOM	560	CA	SER	65	-10.744	-17.947	-13.321	1.00	0.00
ATOM	561	CB	SER	65	-9.930	-16.855	-14.034	1.00	0.00
ATOM	562	OG	SER	65	-10.647	-15.637	-14.061	1.00	0.00
ATOM	563	C	SER	65	-12.023	-18.295	-14.088	1.00	0.00
ATOM	564	O	SER	65	-12.035	-18.247	-15.316	1.00	0.00
ATOM	565	N	GLU	66	-13.088	-18.644	-13.354	1.00	0.00
ATOM	566	CA	GLU	66	-14.395	-19.004	-13.893	1.00	0.00
ATOM	567	CB	GLU	66	-15.056	-17.776	-14.547	1.00	0.00
ATOM	568	CG	GLU	66	-16.555	-17.988	-14.795	1.00	0.00
ATOM	569	CD	GLU	66	-17.207	-16.717	-15.331	1.00	0.00
ATOM	570	OE1	GLU	66	-17.546	-15.857	-14.490	1.00	0.00
ATOM	571	OE2	GLU	66	-17.351	-16.624	-16.569	1.00	0.00
ATOM	572	C	GLU	66	-14.299	-20.224	-14.819	1.00	0.00
ATOM	573	O	GLU	66	-14.323	-20.092	-16.041	1.00	0.00
ATOM	574	N	ASP	67	-14.194	-21.412	-14.214	1.00	0.00

635				636				
ATOM	575	CA ASP	67	-14.102	-22.698	-14.890	1.00	0.00
ATOM	576	CB ASP	67	-12.637	-22.998	-15.237	1.00	0.00
ATOM	577	CG ASP	67	-12.483	-24.323	-15.978	1.00	0.00
ATOM	578	OD1 ASP	67	-11.885	-25.247	-15.384	1.00	0.00
ATOM	579	OD2 ASP	67	-12.935	-24.382	-17.142	1.00	0.00
ATOM	580	C ASP	67	-14.682	-23.758	-13.950	1.00	0.00
ATOM	581	OT1 ASP	67	-15.660	-24.405	-14.385	1.00	0.00
ATOM	582	OT2 ASP	67	-14.438	-23.589	-12.734	1.00	0.00
ATOM	583	O5' GUA	68	-7.938	-40.883	10.519	1.00	0.00
ATOM	584	C5' GUA	68	-7.691	-41.619	9.338	1.00	0.00
ATOM	585	C4' GUA	68	-7.843	-40.734	8.099	1.00	0.00
ATOM	586	O4' GUA	68	-9.135	-40.168	8.022	1.00	0.00
ATOM	587	C1' GUA	68	-9.076	-39.073	7.134	1.00	0.00
ATOM	588	N9 GUA	68	-10.232	-38.179	7.356	1.00	0.00
ATOM	589	C8 GUA	68	-10.693	-37.685	8.548	1.00	0.00
ATOM	590	N7 GUA	68	-11.792	-36.992	8.452	1.00	0.00
ATOM	591	C5 GUA	68	-12.076	-37.012	7.091	1.00	0.00
ATOM	592	C6 GUA	68	-13.165	-36.436	6.370	1.00	0.00
ATOM	593	O6 GUA	68	-14.144	-35.845	6.822	1.00	0.00
ATOM	594	N1 GUA	68	-13.042	-36.610	4.997	1.00	0.00
ATOM	595	C2 GUA	68	-12.016	-37.303	4.384	1.00	0.00
ATOM	596	N2 GUA	68	-12.020	-37.375	3.051	1.00	0.00
ATOM	597	N3 GUA	68	-11.020	-37.888	5.061	1.00	0.00
ATOM	598	C4 GUA	68	-11.104	-37.704	6.406	1.00	0.00
ATOM	599	C3' GUA	68	-6.874	-39.542	8.070	1.00	0.00
ATOM	600	C2' GUA	68	-7.773	-38.413	7.545	1.00	0.00
ATOM	601	O3' GUA	68	-5.796	-39.876	7.206	1.00	0.00
ATOM	602	P THY	69	-4.581	-38.863	6.851	1.00	0.00
ATOM	603	OP1 THY	69	-3.543	-39.628	6.130	1.00	0.00
ATOM	604	OP2 THY	69	-4.226	-38.109	8.074	1.00	0.00
ATOM	605	O5' THY	69	-5.258	-37.843	5.804	1.00	0.00
ATOM	606	C5' THY	69	-5.947	-38.325	4.666	1.00	0.00
ATOM	607	C4' THY	69	-6.875	-37.259	4.069	1.00	0.00
ATOM	608	O4' THY	69	-7.966	-36.828	4.846	1.00	0.00
ATOM	609	C1' THY	69	-8.407	-35.595	4.323	1.00	0.00
ATOM	610	N1 THY	69	-9.332	-34.939	5.284	1.00	0.00
ATOM	611	C6 THY	69	-9.056	-34.976	6.629	1.00	0.00
ATOM	612	C5 THY	69	-9.877	-34.383	7.531	1.00	0.00
ATOM	613	C7 THY	69	-9.452	-34.459	8.986	1.00	0.00
ATOM	614	C4 THY	69	-11.094	-33.711	7.118	1.00	0.00
ATOM	615	O4 THY	69	-11.885	-33.136	7.861	1.00	0.00
ATOM	616	N3 THY	69	-11.328	-33.760	5.755	1.00	0.00
ATOM	617	C2 THY	69	-10.497	-34.337	4.806	1.00	0.00
ATOM	618	O2 THY	69	-10.804	-34.305	3.617	1.00	0.00
ATOM	619	C3' THY	69	-6.149	-35.976	3.655	1.00	0.00
ATOM	620	C2' THY	69	-7.070	-34.875	4.200	1.00	0.00
ATOM	621	O3' THY	69	-5.976	-35.941	2.250	1.00	0.00
ATOM	622	P THY	70	-5.154	-34.747	1.550	1.00	0.00
ATOM	623	OP1 THY	70	-4.351	-34.094	2.600	1.00	0.00
ATOM	624	OP2 THY	70	-4.471	-35.273	0.344	1.00	0.00

(320)

特開2003-135087

637

638

ATOM	625	O5'	THY	70	-6.299	-33.721	1.103	1.00	0.00
ATOM	626	C5'	THY	70	-7.298	-34.082	0.172	1.00	0.00
ATOM	627	C4'	THY	70	-8.429	-33.057	0.251	1.00	0.00
ATOM	628	O4'	THY	70	-8.903	-32.981	1.578	1.00	0.00
ATOM	629	C1'	THY	70	-9.627	-31.780	1.698	1.00	0.00
ATOM	630	N1	THY	70	-9.815	-31.402	3.121	1.00	0.00
ATOM	631	C6	THY	70	-8.777	-31.527	4.011	1.00	0.00
ATOM	632	C5	THY	70	-8.943	-31.226	5.323	1.00	0.00
ATOM	633	C7	THY	70	-7.726	-31.420	6.204	1.00	0.00
ATOM	634	C4	THY	70	-10.211	-30.753	5.840	1.00	0.00
ATOM	635	O4	THY	70	-10.449	-30.454	7.007	1.00	0.00
ATOM	636	N3	THY	70	-11.205	-30.665	4.882	1.00	0.00
ATOM	637	C2	THY	70	-11.056	-30.915	3.528	1.00	0.00
ATOM	638	O2	THY	70	-11.974	-30.676	2.748	1.00	0.00
ATOM	639	C3'	THY	70	-7.992	-31.623	-0.080	1.00	0.00
ATOM	640	C2'	THY	70	-8.734	-30.781	0.971	1.00	0.00
ATOM	641	O3'	THY	70	-8.325	-31.317	-1.421	1.00	0.00
ATOM	642	P	ADE	71	-8.097	-29.854	-2.056	1.00	0.00
ATOM	643	OP1	ADE	71	-8.139	-29.940	-3.530	1.00	0.00
ATOM	644	OP2	ADE	71	-6.962	-29.169	-1.382	1.00	0.00
ATOM	645	O5'	ADE	71	-9.391	-29.078	-1.561	1.00	0.00
ATOM	646	C5'	ADE	71	-10.698	-29.239	-2.066	1.00	0.00
ATOM	647	C4'	ADE	71	-11.530	-28.125	-1.406	1.00	0.00
ATOM	648	O4'	ADE	71	-11.767	-28.419	-0.023	1.00	0.00
ATOM	649	C1'	ADE	71	-11.503	-27.260	0.749	1.00	0.00
ATOM	650	N9	ADE	71	-11.193	-27.493	2.184	1.00	0.00
ATOM	651	C8	ADE	71	-10.011	-27.939	2.724	1.00	0.00
ATOM	652	N7	ADE	71	-9.937	-27.914	4.019	1.00	0.00
ATOM	653	C5	ADE	71	-11.165	-27.388	4.379	1.00	0.00
ATOM	654	C6	ADE	71	-11.701	-27.058	5.632	1.00	0.00
ATOM	655	N6	ADE	71	-11.003	-27.252	6.749	1.00	0.00
ATOM	656	N1	ADE	71	-12.911	-26.471	5.687	1.00	0.00
ATOM	657	C2	ADE	71	-13.550	-26.226	4.543	1.00	0.00
ATOM	658	N3	ADE	71	-13.154	-26.495	3.299	1.00	0.00
ATOM	659	C4	ADE	71	-11.931	-27.094	3.280	1.00	0.00
ATOM	660	C3'	ADE	71	-10.700	-26.825	-1.419	1.00	0.00
ATOM	661	C2'	ADE	71	-10.246	-26.796	0.037	1.00	0.00
ATOM	662	O3'	ADE	71	-11.425	-25.672	-1.761	1.00	0.00
ATOM	663	P	GUA	72	-10.652	-24.280	-2.021	1.00	0.00
ATOM	664	OP1	GUA	72	-9.279	-24.396	-1.459	1.00	0.00
ATOM	665	OP2	GUA	72	-10.838	-23.893	-3.435	1.00	0.00
ATOM	666	O5'	GUA	72	-11.529	-23.301	-1.098	1.00	0.00
ATOM	667	C5'	GUA	72	-12.898	-23.083	-1.395	1.00	0.00
ATOM	668	C4'	GUA	72	-13.659	-22.549	-0.178	1.00	0.00
ATOM	669	O4'	GUA	72	-13.332	-23.337	0.959	1.00	0.00
ATOM	670	C1'	GUA	72	-12.824	-22.517	1.992	1.00	0.00
ATOM	671	N9	GUA	72	-11.758	-23.218	2.742	1.00	0.00
ATOM	672	C8	GUA	72	-10.576	-23.718	2.258	1.00	0.00
ATOM	673	N7	GUA	72	-9.766	-24.166	3.175	1.00	0.00
ATOM	674	C5	GUA	72	-10.470	-23.968	4.356	1.00	0.00

(321)

特開2003-135087

639

640

ATOM	675	C6	GUA	72	-10.090	-24.238	5.702	1.00	0.00
ATOM	676	O6	GUA	72	-9.027	-24.704	6.102	1.00	0.00
ATOM	677	N1	GUA	72	-11.090	-23.921	6.617	1.00	0.00
ATOM	678	C2	GUA	72	-12.328	-23.419	6.271	1.00	0.00
ATOM	679	N2	GUA	72	-13.189	-23.181	7.262	1.00	0.00
ATOM	680	N3	GUA	72	-12.676	-23.128	5.009	1.00	0.00
ATOM	681	C4	GUA	72	-11.707	-23.425	4.100	1.00	0.00
ATOM	682	C3'	GUA	72	-13.312	-21.099	0.178	1.00	0.00
ATOM	683	C2'	GUA	72	-12.249	-21.312	1.251	1.00	0.00
ATOM	684	O3'	GUA	72	-14.483	-20.472	0.667	1.00	0.00
ATOM	685	P	GUA	73	-14.506	-18.945	1.180	1.00	0.00
ATOM	686	OP1	GUA	73	-13.216	-18.305	0.837	1.00	0.00
ATOM	687	OP2	GUA	73	-15.777	-18.327	0.743	1.00	0.00
ATOM	688	O5'	GUA	73	-14.560	-19.148	2.775	1.00	0.00
ATOM	689	C5'	GUA	73	-15.687	-19.742	3.393	1.00	0.00
ATOM	690	C4'	GUA	73	-15.554	-19.692	4.916	1.00	0.00
ATOM	691	O4'	GUA	73	-14.406	-20.413	5.327	1.00	0.00
ATOM	692	C1'	GUA	73	-13.674	-19.653	6.265	1.00	0.00
ATOM	693	N9	GUA	73	-12.248	-20.042	6.203	1.00	0.00
ATOM	694	C8	GUA	73	-11.452	-20.147	5.093	1.00	0.00
ATOM	695	N7	GUA	73	-10.246	-20.588	5.330	1.00	0.00
ATOM	696	C5	GUA	73	-10.232	-20.767	6.709	1.00	0.00
ATOM	697	C6	GUA	73	-9.181	-21.216	7.564	1.00	0.00
ATOM	698	O6	GUA	73	-8.046	-21.558	7.234	1.00	0.00
ATOM	699	N1	GUA	73	-9.556	-21.233	8.903	1.00	0.00
ATOM	700	C2	GUA	73	-10.814	-20.891	9.364	1.00	0.00
ATOM	701	N2	GUA	73	-11.037	-20.915	10.679	1.00	0.00
ATOM	702	N3	GUA	73	-11.806	-20.489	8.561	1.00	0.00
ATOM	703	C4	GUA	73	-11.451	-20.437	7.251	1.00	0.00
ATOM	704	C3'	GUA	73	-15.376	-18.257	5.433	1.00	0.00
ATOM	705	C2'	GUA	73	-13.886	-18.227	5.769	1.00	0.00
ATOM	706	O3'	GUA	73	-16.207	-18.073	6.567	1.00	0.00
ATOM	707	P	GUA	74	-16.361	-16.644	7.298	1.00	0.00
ATOM	708	OP1	GUA	74	-15.935	-15.580	6.362	1.00	0.00
ATOM	709	OP2	GUA	74	-17.702	-16.584	7.918	1.00	0.00
ATOM	710	O5'	GUA	74	-15.265	-16.746	8.471	1.00	0.00
ATOM	711	C5'	GUA	74	-15.486	-17.567	9.602	1.00	0.00
ATOM	712	C4'	GUA	74	-14.296	-17.486	10.561	1.00	0.00
ATOM	713	O4'	GUA	74	-13.130	-18.017	9.956	1.00	0.00
ATOM	714	C1'	GUA	74	-12.020	-17.289	10.428	1.00	0.00
ATOM	715	N9	GUA	74	-10.842	-17.494	9.554	1.00	0.00
ATOM	716	C8	GUA	74	-10.763	-17.374	8.191	1.00	0.00
ATOM	717	N7	GUA	74	-9.595	-17.675	7.694	1.00	0.00
ATOM	718	C5	GUA	74	-8.836	-18.011	8.810	1.00	0.00
ATOM	719	C6	GUA	74	-7.481	-18.449	8.902	1.00	0.00
ATOM	720	O6	GUA	74	-6.685	-18.639	7.985	1.00	0.00
ATOM	721	N1	GUA	74	-7.081	-18.670	10.215	1.00	0.00
ATOM	722	C2	GUA	74	-7.900	-18.516	11.315	1.00	0.00
ATOM	723	N2	GUA	74	-7.375	-18.736	12.523	1.00	0.00
ATOM	724	N3	GUA	74	-9.179	-18.125	11.230	1.00	0.00

641					642				
ATOM	725	C4	GUA	74	-9.588	-17.890	9.955	1.00	0.00
ATOM	726	C3'	GUA	74	-13.944	-16.044	10.969	1.00	0.00
ATOM	727	C2'	GUA	74	-12.561	-15.869	10.335	1.00	0.00
ATOM	728	O3'	GUA	74	-13.922	-15.974	12.385	1.00	0.00
ATOM	729	P	THY	75	-13.615	-14.609	13.194	1.00	0.00
ATOM	730	OP1	THY	75	-14.592	-14.491	14.298	1.00	0.00
ATOM	731	OP2	THY	75	-13.455	-13.500	12.227	1.00	0.00
ATOM	732	O5'	THY	75	-12.170	-14.933	13.827	1.00	0.00
ATOM	733	C5'	THY	75	-12.017	-15.963	14.788	1.00	0.00
ATOM	734	C4'	THY	75	-10.551	-16.107	15.201	1.00	0.00
ATOM	735	O4'	THY	75	-9.760	-16.341	14.049	1.00	0.00
ATOM	736	C1'	THY	75	-8.602	-15.538	14.104	1.00	0.00
ATOM	737	N1	THY	75	-8.084	-15.296	12.729	1.00	0.00
ATOM	738	C6	THY	75	-8.913	-14.803	11.746	1.00	0.00
ATOM	739	C5	THY	75	-8.470	-14.631	10.475	1.00	0.00
ATOM	740	C7	THY	75	-9.459	-14.032	9.490	1.00	0.00
ATOM	741	C4	THY	75	-7.122	-14.994	10.087	1.00	0.00
ATOM	742	O4	THY	75	-6.655	-14.953	8.952	1.00	0.00
ATOM	743	N3	THY	75	-6.344	-15.437	11.140	1.00	0.00
ATOM	744	C2	THY	75	-6.752	-15.600	12.453	1.00	0.00
ATOM	745	O2	THY	75	-5.952	-15.990	13.300	1.00	0.00
ATOM	746	C3'	THY	75	-9.988	-14.845	15.873	1.00	0.00
ATOM	747	C2'	THY	75	-9.116	-14.261	14.765	1.00	0.00
ATOM	748	O3'	THY	75	-9.232	-15.216	17.014	1.00	0.00
ATOM	749	P	THY	76	-8.646	-14.125	18.053	1.00	0.00
ATOM	750	OP1	THY	76	-9.007	-12.771	17.579	1.00	0.00
ATOM	751	OP2	THY	76	-9.011	-14.548	19.424	1.00	0.00
ATOM	752	O5'	THY	76	-7.054	-14.298	17.878	1.00	0.00
ATOM	753	C5'	THY	76	-6.387	-15.446	18.369	1.00	0.00
ATOM	754	C4'	THY	76	-4.916	-15.411	17.954	1.00	0.00
ATOM	755	O4'	THY	76	-4.843	-15.287	16.543	1.00	0.00
ATOM	756	C1'	THY	76	-3.836	-14.372	16.184	1.00	0.00
ATOM	757	N1	THY	76	-4.141	-13.800	14.836	1.00	0.00
ATOM	758	C6	THY	76	-5.292	-13.072	14.629	1.00	0.00
ATOM	759	C5	THY	76	-5.603	-12.577	13.404	1.00	0.00
ATOM	760	C7	THY	76	-6.886	-11.775	13.299	1.00	0.00
ATOM	761	C4	THY	76	-4.759	-12.814	12.251	1.00	0.00
ATOM	762	O4	THY	76	-4.976	-12.415	11.110	1.00	0.00
ATOM	763	N3	THY	76	-3.646	-13.589	12.521	1.00	0.00
ATOM	764	C2	THY	76	-3.300	-14.105	13.760	1.00	0.00
ATOM	765	O2	THY	76	-2.294	-14.803	13.866	1.00	0.00
ATOM	766	C3'	THY	76	-4.139	-14.226	18.557	1.00	0.00
ATOM	767	C2'	THY	76	-3.898	-13.351	17.323	1.00	0.00
ATOM	768	O3'	THY	76	-2.970	-14.732	19.194	1.00	0.00
ATOM	769	P	ADE	77	-1.788	-13.795	19.775	1.00	0.00
ATOM	770	OP1	ADE	77	-1.122	-14.473	20.914	1.00	0.00
ATOM	771	OP2	ADE	77	-2.276	-12.407	19.922	1.00	0.00
ATOM	772	O5'	ADE	77	-0.768	-13.852	18.540	1.00	0.00
ATOM	773	C5'	ADE	77	-0.266	-15.097	18.099	1.00	0.00
ATOM	774	C4'	ADE	77	0.694	-14.894	16.934	1.00	0.00

(323)

特開2003-135087

643

644

ATOM	775	O4'	ADE	77	0.021	-14.317	15.835	1.00	0.00
ATOM	776	C1'	ADE	77	0.862	-13.378	15.200	1.00	0.00
ATOM	777	N9	ADE	77	-0.005	-12.433	14.465	1.00	0.00
ATOM	778	C8	ADE	77	-1.145	-11.821	14.921	1.00	0.00
ATOM	779	N7	ADE	77	-1.851	-11.235	13.997	1.00	0.00
ATOM	780	C5	ADE	77	-1.099	-11.437	12.848	1.00	0.00
ATOM	781	C6	ADE	77	-1.295	-11.061	11.508	1.00	0.00
ATOM	782	N6	ADE	77	-2.392	-10.411	11.119	1.00	0.00
ATOM	783	N1	ADE	77	-0.334	-11.345	10.608	1.00	0.00
ATOM	784	C2	ADE	77	0.752	-11.997	11.019	1.00	0.00
ATOM	785	N3	ADE	77	1.025	-12.466	12.236	1.00	0.00
ATOM	786	C4	ADE	77	0.052	-12.128	13.125	1.00	0.00
ATOM	787	C3'	ADE	77	1.849	-13.950	17.273	1.00	0.00
ATOM	788	C2'	ADE	77	1.572	-12.737	16.385	1.00	0.00
ATOM	789	O3'	ADE	77	3.045	-14.644	16.971	1.00	0.00
ATOM	790	P	GUA	78	4.459	-14.232	17.609	1.00	0.00
ATOM	791	OP1	GUA	78	5.407	-15.340	17.364	1.00	0.00
ATOM	792	OP2	GUA	78	4.227	-13.747	18.993	1.00	0.00
ATOM	793	O5'	GUA	78	4.869	-13.008	16.656	1.00	0.00
ATOM	794	C5'	GUA	78	5.345	-13.260	15.346	1.00	0.00
ATOM	795	C4'	GUA	78	5.308	-12.005	14.471	1.00	0.00
ATOM	796	O4'	GUA	78	3.991	-11.594	14.174	1.00	0.00
ATOM	797	C1'	GUA	78	4.085	-10.276	13.682	1.00	0.00
ATOM	798	N9	GUA	78	2.747	-9.644	13.596	1.00	0.00
ATOM	799	C8	GUA	78	1.823	-9.460	14.594	1.00	0.00
ATOM	800	N7	GUA	78	0.702	-8.929	14.195	1.00	0.00
ATOM	801	C5	GUA	78	0.890	-8.738	12.831	1.00	0.00
ATOM	802	C6	GUA	78	0.005	-8.201	11.848	1.00	0.00
ATOM	803	O6	GUA	78	-1.131	-7.757	12.006	1.00	0.00
ATOM	804	N1	GUA	78	0.558	-8.214	10.574	1.00	0.00
ATOM	805	C2	GUA	78	1.818	-8.687	10.273	1.00	0.00
ATOM	806	N2	GUA	78	2.199	-8.655	8.993	1.00	0.00
ATOM	807	N3	GUA	78	2.658	-9.181	11.195	1.00	0.00
ATOM	808	C4	GUA	78	2.136	-9.180	12.453	1.00	0.00
ATOM	809	C3'	GUA	78	5.967	-10.772	15.103	1.00	0.00
ATOM	810	C2'	GUA	78	4.993	-9.639	14.731	1.00	0.00
ATOM	811	O3'	GUA	78	7.275	-10.655	14.573	1.00	0.00
ATOM	812	P	GUA	79	8.262	-9.443	14.952	1.00	0.00
ATOM	813	OP1	GUA	79	9.647	-9.904	14.703	1.00	0.00
ATOM	814	OP2	GUA	79	7.875	-8.929	16.286	1.00	0.00
ATOM	815	O5'	GUA	79	7.874	-8.376	13.819	1.00	0.00
ATOM	816	C5'	GUA	79	8.070	-8.675	12.447	1.00	0.00
ATOM	817	C4'	GUA	79	7.360	-7.649	11.565	1.00	0.00
ATOM	818	O4'	GUA	79	5.979	-7.601	11.868	1.00	0.00
ATOM	819	C1'	GUA	79	5.499	-6.317	11.536	1.00	0.00
ATOM	820	N9	GUA	79	4.205	-6.074	12.212	1.00	0.00
ATOM	821	C8	GUA	79	3.907	-6.241	13.541	1.00	0.00
ATOM	822	N7	GUA	79	2.673	-5.972	13.854	1.00	0.00
ATOM	823	C5	GUA	79	2.099	-5.598	12.645	1.00	0.00
ATOM	824	C6	GUA	79	0.762	-5.195	12.354	1.00	0.00

(324)

特開2003-135087

645					646				
ATOM	825	O6	GUA	79	-0.176	-5.055	13.135	1.00	0.00
ATOM	826	N1	GUA	79	0.562	-4.958	10.999	1.00	0.00
ATOM	827	C2	GUA	79	1.541	-5.067	10.035	1.00	0.00
ATOM	828	N2	GUA	79	1.194	-4.782	8.779	1.00	0.00
ATOM	829	N3	GUA	79	2.808	-5.416	10.308	1.00	0.00
ATOM	830	C4	GUA	79	3.022	-5.675	11.627	1.00	0.00
ATOM	831	C3'	GUA	79	7.887	-6.220	11.760	1.00	0.00
ATOM	832	C2'	GUA	79	6.613	-5.435	12.091	1.00	0.00
ATOM	833	O3'	GUA	79	8.526	-5.815	10.561	1.00	0.00
ATOM	834	P	GUA	80	9.252	-4.381	10.400	1.00	0.00
ATOM	835	OP1	GUA	80	9.588	-3.863	11.744	1.00	0.00
ATOM	836	OP2	GUA	80	10.306	-4.511	9.371	1.00	0.00
ATOM	837	O5'	GUA	80	8.064	-3.481	9.791	1.00	0.00
ATOM	838	C5'	GUA	80	7.554	-3.736	8.497	1.00	0.00
ATOM	839	C4'	GUA	80	6.312	-2.880	8.243	1.00	0.00
ATOM	840	O4'	GUA	80	5.317	-3.179	9.205	1.00	0.00
ATOM	841	C1'	GUA	80	4.612	-1.996	9.493	1.00	0.00
ATOM	842	N9	GUA	80	3.865	-2.121	10.760	1.00	0.00
ATOM	843	C8	GUA	80	4.346	-2.411	12.010	1.00	0.00
ATOM	844	N7	GUA	80	3.437	-2.438	12.942	1.00	0.00
ATOM	845	C5	GUA	80	2.258	-2.153	12.262	1.00	0.00
ATOM	846	C6	GUA	80	0.918	-2.053	12.743	1.00	0.00
ATOM	847	O6	GUA	80	0.512	-2.174	13.897	1.00	0.00
ATOM	848	N1	GUA	80	0.008	-1.809	11.722	1.00	0.00
ATOM	849	C2	GUA	80	0.340	-1.653	10.393	1.00	0.00
ATOM	850	N2	GUA	80	-0.654	-1.432	9.531	1.00	0.00
ATOM	851	N3	GUA	80	1.599	-1.717	9.941	1.00	0.00
ATOM	852	C4	GUA	80	2.508	-1.976	10.921	1.00	0.00
ATOM	853	C3'	GUA	80	6.580	-1.370	8.368	1.00	0.00
ATOM	854	C2'	GUA	80	5.750	-0.982	9.588	1.00	0.00
ATOM	855	O3'	GUA	80	6.109	-0.680	7.228	1.00	0.00
ATOM	856	O5'	CYT	81	-9.140	0.881	13.308	1.00	0.00
ATOM	857	C5'	CYT	81	-8.720	1.617	12.177	1.00	0.00
ATOM	858	C4'	CYT	81	-7.622	0.880	11.402	1.00	0.00
ATOM	859	O4'	CYT	81	-6.525	0.559	12.230	1.00	0.00
ATOM	860	C1'	CYT	81	-5.753	-0.388	11.525	1.00	0.00
ATOM	861	N1	CYT	81	-4.796	-1.083	12.421	1.00	0.00
ATOM	862	C6	CYT	81	-5.208	-1.551	13.644	1.00	0.00
ATOM	863	C5	CYT	81	-4.369	-2.218	14.468	1.00	0.00
ATOM	864	C4	CYT	81	-3.019	-2.399	14.012	1.00	0.00
ATOM	865	N4	CYT	81	-2.122	-3.027	14.772	1.00	0.00
ATOM	866	N3	CYT	81	-2.632	-1.960	12.808	1.00	0.00
ATOM	867	C2	CYT	81	-3.495	-1.313	11.977	1.00	0.00
ATOM	868	O2	CYT	81	-3.116	-0.960	10.862	1.00	0.00
ATOM	869	C3'	CYT	81	-8.052	-0.469	10.808	1.00	0.00
ATOM	870	C2'	CYT	81	-6.816	-1.352	11.012	1.00	0.00
ATOM	871	O3'	CYT	81	-8.410	-0.285	9.450	1.00	0.00
ATOM	872	P	CYT	82	-8.864	-1.508	8.498	1.00	0.00
ATOM	873	OP1	CYT	82	-9.285	-2.634	9.361	1.00	0.00
ATOM	874	OP2	CYT	82	-9.788	-0.975	7.475	1.00	0.00

(325)

特開2003-135087

647

648

ATOM	875	O5'	CYT	82	-7.481	-1.921	7.773	1.00	0.00
ATOM	876	C5'	CYT	82	-6.833	-1.043	6.870	1.00	0.00
ATOM	877	C4'	CYT	82	-5.539	-1.671	6.336	1.00	0.00
ATOM	878	O4'	CYT	82	-4.661	-1.953	7.407	1.00	0.00
ATOM	879	C1'	CYT	82	-3.997	-3.183	7.197	1.00	0.00
ATOM	880	N1	CYT	82	-3.710	-3.759	8.536	1.00	0.00
ATOM	881	C6	CYT	82	-4.731	-3.857	9.443	1.00	0.00
ATOM	882	C5	CYT	82	-4.531	-4.289	10.703	1.00	0.00
ATOM	883	C4	CYT	82	-3.189	-4.652	11.056	1.00	0.00
ATOM	884	N4	CYT	82	-2.933	-5.149	12.266	1.00	0.00
ATOM	885	N3	CYT	82	-2.183	-4.542	10.173	1.00	0.00
ATOM	886	C2	CYT	82	-2.408	-4.104	8.899	1.00	0.00
ATOM	887	O2	CYT	82	-1.476	-4.034	8.099	1.00	0.00
ATOM	888	C3'	CYT	82	-5.780	-2.998	5.601	1.00	0.00
ATOM	889	C2'	CYT	82	-5.030	-4.025	6.448	1.00	0.00
ATOM	890	O3'	CYT	82	-5.288	-2.877	4.275	1.00	0.00
ATOM	891	P	CYT	83	-5.529	-4.012	3.150	1.00	0.00
ATOM	892	OP1	CYT	83	-5.514	-3.362	1.822	1.00	0.00
ATOM	893	OP2	CYT	83	-6.686	-4.842	3.553	1.00	0.00
ATOM	894	O5'	CYT	83	-4.201	-4.910	3.285	1.00	0.00
ATOM	895	C5'	CYT	83	-2.981	-4.525	2.678	1.00	0.00
ATOM	896	C4'	CYT	83	-1.862	-5.460	3.145	1.00	0.00
ATOM	897	O4'	CYT	83	-1.757	-5.396	4.553	1.00	0.00
ATOM	898	C1'	CYT	83	-1.086	-6.542	5.032	1.00	0.00
ATOM	899	N1	CYT	83	-1.675	-6.936	6.338	1.00	0.00
ATOM	900	C6	CYT	83	-3.036	-6.991	6.467	1.00	0.00
ATOM	901	C5	CYT	83	-3.630	-7.212	7.662	1.00	0.00
ATOM	902	C4	CYT	83	-2.759	-7.427	8.782	1.00	0.00
ATOM	903	N4	CYT	83	-3.268	-7.630	9.999	1.00	0.00
ATOM	904	N3	CYT	83	-1.427	-7.449	8.636	1.00	0.00
ATOM	905	C2	CYT	83	-0.848	-7.218	7.423	1.00	0.00
ATOM	906	O2	CYT	83	0.373	-7.276	7.304	1.00	0.00
ATOM	907	C3'	CYT	83	-2.151	-6.937	2.864	1.00	0.00
ATOM	908	C2'	CYT	83	-1.362	-7.619	3.982	1.00	0.00
ATOM	909	O3'	CYT	83	-1.721	-7.313	1.564	1.00	0.00
ATOM	910	P	THY	84	-1.905	-8.814	0.986	1.00	0.00
ATOM	911	OP1	THY	84	-1.591	-8.828	-0.462	1.00	0.00
ATOM	912	OP2	THY	84	-3.214	-9.365	1.405	1.00	0.00
ATOM	913	O5'	THY	84	-0.774	-9.690	1.710	1.00	0.00
ATOM	914	C5'	THY	84	0.600	-9.483	1.444	1.00	0.00
ATOM	915	C4'	THY	84	1.430	-10.395	2.351	1.00	0.00
ATOM	916	O4'	THY	84	1.010	-10.204	3.690	1.00	0.00
ATOM	917	C1'	THY	84	0.848	-11.442	4.346	1.00	0.00
ATOM	918	N1	THY	84	-0.186	-11.286	5.413	1.00	0.00
ATOM	919	C6	THY	84	-1.484	-10.967	5.079	1.00	0.00
ATOM	920	C5	THY	84	-2.422	-10.733	6.029	1.00	0.00
ATOM	921	C7	THY	84	-3.828	-10.436	5.534	1.00	0.00
ATOM	922	C4	THY	84	-2.099	-10.779	7.437	1.00	0.00
ATOM	923	O4	THY	84	-2.884	-10.547	8.350	1.00	0.00
ATOM	924	N3	THY	84	-0.781	-11.110	7.705	1.00	0.00

649				650				
ATOM	925	C2	THY	84	0.199	-11.373	6.755	1.00 0.00
ATOM	926	O2	THY	84	1.336	-11.669	7.113	1.00 0.00
ATOM	927	C3'	THY	84	1.234	-11.883	2.022	1.00 0.00
ATOM	928	C2'	THY	84	0.422	-12.387	3.218	1.00 0.00
ATOM	929	O3'	THY	84	2.502	-12.504	1.881	1.00 0.00
ATOM	930	P	ADE	85	2.665	-14.055	1.456	1.00 0.00
ATOM	931	OP1	ADE	85	4.004	-14.245	0.855	1.00 0.00
ATOM	932	OP2	ADE	85	1.459	-14.470	0.707	1.00 0.00
ATOM	933	O5'	ADE	85	2.656	-14.787	2.889	1.00 0.00
ATOM	934	C5'	ADE	85	3.691	-14.547	3.823	1.00 0.00
ATOM	935	C4'	ADE	85	3.282	-15.024	5.217	1.00 0.00
ATOM	936	O4'	ADE	85	2.075	-14.420	5.635	1.00 0.00
ATOM	937	C1'	ADE	85	1.514	-15.238	6.634	1.00 0.00
ATOM	938	N9	ADE	85	0.090	-14.891	6.832	1.00 0.00
ATOM	939	C8	ADE	85	-0.866	-14.673	5.873	1.00 0.00
ATOM	940	N7	ADE	85	-2.014	-14.263	6.336	1.00 0.00
ATOM	941	C5	ADE	85	-1.814	-14.240	7.712	1.00 0.00
ATOM	942	C6	ADE	85	-2.644	-13.890	8.796	1.00 0.00
ATOM	943	N6	ADE	85	-3.895	-13.454	8.636	1.00 0.00
ATOM	944	N1	ADE	85	-2.163	-14.025	10.046	1.00 0.00
ATOM	945	C2	ADE	85	-0.920	-14.467	10.203	1.00 0.00
ATOM	946	N3	ADE	85	-0.026	-14.794	9.278	1.00 0.00
ATOM	947	C4	ADE	85	-0.545	-14.658	8.028	1.00 0.00
ATOM	948	C3'	ADE	85	3.050	-16.537	5.318	1.00 0.00
ATOM	949	C2'	ADE	85	1.678	-16.610	5.998	1.00 0.00
ATOM	950	O3'	ADE	85	4.108	-17.091	6.086	1.00 0.00
ATOM	951	P	ADE	86	4.183	-18.654	6.480	1.00 0.00
ATOM	952	OP1	ADE	86	5.597	-19.008	6.738	1.00 0.00
ATOM	953	OP2	ADE	86	3.393	-19.434	5.502	1.00 0.00
ATOM	954	O5'	ADE	86	3.422	-18.684	7.899	1.00 0.00
ATOM	955	C5'	ADE	86	3.928	-17.941	8.989	1.00 0.00
ATOM	956	C4'	ADE	86	3.190	-18.245	10.295	1.00 0.00
ATOM	957	O4'	ADE	86	1.892	-17.681	10.239	1.00 0.00
ATOM	958	C1'	ADE	86	0.911	-18.657	10.518	1.00 0.00
ATOM	959	N9	ADE	86	-0.293	-18.333	9.719	1.00 0.00
ATOM	960	C8	ADE	86	-0.450	-18.374	8.355	1.00 0.00
ATOM	961	N7	ADE	86	-1.576	-17.881	7.922	1.00 0.00
ATOM	962	C5	ADE	86	-2.231	-17.508	9.088	1.00 0.00
ATOM	963	C6	ADE	86	-3.499	-16.946	9.332	1.00 0.00
ATOM	964	N6	ADE	86	-4.348	-16.629	8.353	1.00 0.00
ATOM	965	N1	ADE	86	-3.855	-16.704	10.605	1.00 0.00
ATOM	966	C2	ADE	86	-3.009	-17.008	11.585	1.00 0.00
ATOM	967	N3	ADE	86	-1.794	-17.536	11.489	1.00 0.00
ATOM	968	C4	ADE	86	-1.459	-17.775	10.191	1.00 0.00
ATOM	969	C3'	ADE	86	3.013	-19.742	10.587	1.00 0.00
ATOM	970	C2'	ADE	86	1.577	-19.976	10.120	1.00 0.00
ATOM	971	O3'	ADE	86	3.193	-19.947	11.979	1.00 0.00
ATOM	972	P	CYT	87	3.247	-21.411	12.661	1.00 0.00
ATOM	973	OP1	CYT	87	4.038	-21.282	13.906	1.00 0.00
ATOM	974	OP2	CYT	87	3.641	-22.410	11.637	1.00 0.00

651				652				
ATOM	975	O5' CYT	87	1.702	-21.658	13.064	1.00	0.00
ATOM	976	C5' CYT	87	1.158	-21.056	14.226	1.00	0.00
ATOM	977	C4' CYT	87	-0.375	-21.001	14.212	1.00	0.00
ATOM	978	O4' CYT	87	-0.860	-20.455	13.004	1.00	0.00
ATOM	979	C1' CYT	87	-2.234	-20.765	12.935	1.00	0.00
ATOM	980	N1 CYT	87	-2.755	-20.628	11.553	1.00	0.00
ATOM	981	C6 CYT	87	-2.020	-21.096	10.496	1.00	0.00
ATOM	982	C5 CYT	87	-2.451	-20.959	9.225	1.00	0.00
ATOM	983	C4 CYT	87	-3.711	-20.303	9.028	1.00	0.00
ATOM	984	N4 CYT	87	-4.145	-20.041	7.797	1.00	0.00
ATOM	985	N3 CYT	87	-4.442	-19.877	10.067	1.00	0.00
ATOM	986	C2 CYT	87	-4.005	-20.047	11.346	1.00	0.00
ATOM	987	O2 CYT	87	-4.709	-19.678	12.283	1.00	0.00
ATOM	988	C3' CYT	87	-1.094	-22.353	14.350	1.00	0.00
ATOM	989	C2' CYT	87	-2.256	-22.226	13.361	1.00	0.00
ATOM	990	O3' CYT	87	-1.527	-22.530	15.690	1.00	0.00
ATOM	991	P CYT	88	-2.268	-23.878	16.193	1.00	0.00
ATOM	992	OP1 CYT	88	-1.839	-24.995	15.321	1.00	0.00
ATOM	993	OP2 CYT	88	-2.084	-23.976	17.657	1.00	0.00
ATOM	994	O5' CYT	88	-3.829	-23.583	15.897	1.00	0.00
ATOM	995	C5' CYT	88	-4.558	-22.623	16.644	1.00	0.00
ATOM	996	C4' CYT	88	-5.923	-22.358	15.995	1.00	0.00
ATOM	997	O4' CYT	88	-5.741	-21.966	14.651	1.00	0.00
ATOM	998	C1' CYT	88	-6.896	-22.304	13.918	1.00	0.00
ATOM	999	N1 CYT	88	-6.558	-22.444	12.483	1.00	0.00
ATOM	1000	C6 CYT	88	-5.407	-23.087	12.117	1.00	0.00
ATOM	1001	C5 CYT	88	-5.047	-23.227	10.826	1.00	0.00
ATOM	1002	C4 CYT	88	-5.951	-22.690	9.842	1.00	0.00
ATOM	1003	N4 CYT	88	-5.705	-22.806	8.538	1.00	0.00
ATOM	1004	N3 CYT	88	-7.110	-22.121	10.206	1.00	0.00
ATOM	1005	C2 CYT	88	-7.448	-21.988	11.518	1.00	0.00
ATOM	1006	O2 CYT	88	-8.530	-21.499	11.825	1.00	0.00
ATOM	1007	C3' CYT	88	-6.849	-23.585	15.946	1.00	0.00
ATOM	1008	C2' CYT	88	-7.267	-23.669	14.481	1.00	0.00
ATOM	1009	O3' CYT	88	-7.959	-23.385	16.809	1.00	0.00
ATOM	1010	P CYT	89	-9.097	-24.512	17.047	1.00	0.00
ATOM	1011	OP1 CYT	89	-9.660	-24.310	18.401	1.00	0.00
ATOM	1012	OP2 CYT	89	-8.529	-25.829	16.683	1.00	0.00
ATOM	1013	O5' CYT	89	-10.248	-24.155	15.967	1.00	0.00
ATOM	1014	C5' CYT	89	-11.120	-23.050	16.146	1.00	0.00
ATOM	1015	C4' CYT	89	-12.206	-23.018	15.059	1.00	0.00
ATOM	1016	O4' CYT	89	-11.617	-22.878	13.782	1.00	0.00
ATOM	1017	C1' CYT	89	-12.341	-23.614	12.815	1.00	0.00
ATOM	1018	N1 CYT	89	-11.389	-24.060	11.768	1.00	0.00
ATOM	1019	C6 CYT	89	-10.160	-24.523	12.153	1.00	0.00
ATOM	1020	C5 CYT	89	-9.190	-24.793	11.258	1.00	0.00
ATOM	1021	C4 CYT	89	-9.512	-24.578	9.879	1.00	0.00
ATOM	1022	N4 CYT	89	-8.566	-24.716	8.955	1.00	0.00
ATOM	1023	N3 CYT	89	-10.748	-24.224	9.492	1.00	0.00
ATOM	1024	C2 CYT	89	-11.723	-23.972	10.417	1.00	0.00

653				654				
ATOM	1025	O2	CYT	89	-12.856	-23.667	10.050	1.00 0.00
ATOM	1026	C3'	CYT	89	-13.055	-24.300	15.012	1.00 0.00
ATOM	1027	C2'	CYT	89	-12.846	-24.821	13.593	1.00 0.00
ATOM	1028	O3'	CYT	89	-14.408	-23.977	15.302	1.00 0.00
ATOM	1029	P	THY	90	-15.601	-25.073	15.304	1.00 0.00
ATOM	1030	OP1	THY	90	-16.572	-24.697	16.355	1.00 0.00
ATOM	1031	OP2	THY	90	-15.006	-26.428	15.302	1.00 0.00
ATOM	1032	O5'	THY	90	-16.298	-24.836	13.867	1.00 0.00
ATOM	1033	C5'	THY	90	-16.916	-23.603	13.543	1.00 0.00
ATOM	1034	C4'	THY	90	-17.384	-23.595	12.082	1.00 0.00
ATOM	1035	O4'	THY	90	-16.292	-23.941	11.249	1.00 0.00
ATOM	1036	C1'	THY	90	-16.677	-24.914	10.302	1.00 0.00
ATOM	1037	N1	THY	90	-15.492	-25.760	9.995	1.00 0.00
ATOM	1038	C6	THY	90	-14.877	-26.455	11.008	1.00 0.00
ATOM	1039	C5	THY	90	-13.738	-27.153	10.798	1.00 0.00
ATOM	1040	C7	THY	90	-13.169	-27.907	11.987	1.00 0.00
ATOM	1041	C4	THY	90	-13.103	-27.180	9.502	1.00 0.00
ATOM	1042	O4	THY	90	-12.047	-27.753	9.253	1.00 0.00
ATOM	1043	N3	THY	90	-13.783	-26.476	8.516	1.00 0.00
ATOM	1044	C2	THY	90	-14.965	-25.767	8.701	1.00 0.00
ATOM	1045	O2	THY	90	-15.496	-25.195	7.753	1.00 0.00
ATOM	1046	C3'	THY	90	-18.508	-24.600	11.786	1.00 0.00
ATOM	1047	C2'	THY	90	-17.781	-25.699	11.016	1.00 0.00
ATOM	1048	O3'	THY	90	-19.515	-23.960	11.017	1.00 0.00
ATOM	1049	P	ADE	91	-20.920	-24.676	10.652	1.00 0.00
ATOM	1050	OP1	ADE	91	-21.901	-23.621	10.314	1.00 0.00
ATOM	1051	OP2	ADE	91	-21.235	-25.659	11.712	1.00 0.00
ATOM	1052	O5'	ADE	91	-20.564	-25.484	9.305	1.00 0.00
ATOM	1053	C5'	ADE	91	-20.396	-24.812	8.072	1.00 0.00
ATOM	1054	C4'	ADE	91	-19.800	-25.755	7.023	1.00 0.00
ATOM	1055	O4'	ADE	91	-18.533	-26.227	7.421	1.00 0.00
ATOM	1056	C1'	ADE	91	-18.249	-27.352	6.623	1.00 0.00
ATOM	1057	N9	ADE	91	-17.151	-28.130	7.225	1.00 0.00
ATOM	1058	C8	ADE	91	-17.006	-28.495	8.537	1.00 0.00
ATOM	1059	N7	ADE	91	-15.885	-29.107	8.802	1.00 0.00
ATOM	1060	C5	ADE	91	-15.260	-29.182	7.559	1.00 0.00
ATOM	1061	C6	ADE	91	-14.027	-29.713	7.133	1.00 0.00
ATOM	1062	N6	ADE	91	-13.151	-30.268	7.973	1.00 0.00
ATOM	1063	N1	ADE	91	-13.733	-29.680	5.819	1.00 0.00
ATOM	1064	C2	ADE	91	-14.606	-29.138	4.974	1.00 0.00
ATOM	1065	N3	ADE	91	-15.774	-28.571	5.251	1.00 0.00
ATOM	1066	C4	ADE	91	-16.046	-28.624	6.582	1.00 0.00
ATOM	1067	C3'	ADE	91	-20.623	-27.027	6.762	1.00 0.00
ATOM	1068	C2'	ADE	91	-19.556	-28.125	6.694	1.00 0.00
ATOM	1069	O3'	ADE	91	-21.354	-26.847	5.558	1.00 0.00
ATOM	1070	P	ADE	92	-22.244	-28.012	4.878	1.00 0.00
ATOM	1071	OP1	ADE	92	-23.278	-27.371	4.036	1.00 0.00
ATOM	1072	OP2	ADE	92	-22.640	-28.982	5.924	1.00 0.00
ATOM	1073	O5'	ADE	92	-21.182	-28.732	3.900	1.00 0.00
ATOM	1074	C5'	ADE	92	-20.565	-28.020	2.843	1.00 0.00

(329)

特開2003-135087

655

656

ATOM	1075	C4'	ADE	92	-19.510	-28.887	2.150	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.516	-29.286	3.081	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.151	-30.626	2.826	1.00	0.00
ATOM	1078	N9	ADE	92	-17.549	-31.221	4.041	1.00	0.00
ATOM	1079	C8	ADE	92	-18.080	-31.274	5.305	1.00	0.00
ATOM	1080	N7	ADE	92	-17.286	-31.775	6.208	1.00	0.00
ATOM	1081	C5	ADE	92	-16.142	-32.090	5.486	1.00	0.00
ATOM	1082	C6	ADE	92	-14.906	-32.655	5.858	1.00	0.00
ATOM	1083	N6	ADE	92	-14.632	-32.975	7.124	1.00	0.00
ATOM	1084	N1	ADE	92	-13.974	-32.860	4.910	1.00	0.00
ATOM	1085	C2	ADE	92	-14.260	-32.522	3.655	1.00	0.00
ATOM	1086	N3	ADE	92	-15.376	-31.977	3.176	1.00	0.00
ATOM	1087	C4	ADE	92	-16.294	-31.775	4.159	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.091	-30.181	1.558	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.508	-31.242	2.493	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.640	-30.307	0.219	1.00	0.00
ATOM	1091	P	CYT	93	-20.166	-31.471	-0.768	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.289	-32.183	-0.119	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.341	-30.892	-2.119	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.905	-32.468	-0.809	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.739	-32.143	-1.541	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.673	-33.215	-1.304	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.418	-33.305	0.079	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.987	-34.607	0.391	1.00	0.00
ATOM	1099	N1	CYT	93	-16.265	-34.868	1.825	1.00	0.00
ATOM	1100	C6	CYT	93	-17.472	-34.501	2.366	1.00	0.00
ATOM	1101	C5	CYT	93	-17.743	-34.668	3.679	1.00	0.00
ATOM	1102	C4	CYT	93	-16.703	-35.241	4.485	1.00	0.00
ATOM	1103	N4	CYT	93	-16.848	-35.347	5.807	1.00	0.00
ATOM	1104	N3	CYT	93	-15.536	-35.620	3.947	1.00	0.00
ATOM	1105	C2	CYT	93	-15.286	-35.457	2.619	1.00	0.00
ATOM	1106	O2	CYT	93	-14.209	-35.821	2.150	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.128	-34.622	-1.722	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.850	-35.498	-0.502	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.393	-35.081	-2.837	1.00	0.00

END

HEADER 000000

REMARK 0.00533 1.66306 0.02523 0.01744 2.58257 1.96952

0.00000

REMARK 2.50596 0.25523 0.53083 1.04364 0.67627

REMARK 0.01076 0.00408 0.00685 0.02014 0.00806

REMARK 122 120 1 1 0 0

0

REMARK 1378 305 460 273 340

REMARK 0.03615 0.20902 0.03632 0.03559 0.20902 0.07393

657

658

REMARK 0.00000 0.00000

REMARK 0 0 0 0 0 0

0

ATOM	1	N	GLU	1	5.704	-33.002	27.307	1.00	0.00
ATOM	2	CA	GLU	1	4.502	-32.835	26.470	1.00	0.00
ATOM	3	CB	GLU	1	3.204	-32.967	27.292	1.00	0.00
ATOM	4	CG	GLU	1	2.903	-31.793	28.238	1.00	0.00
ATOM	5	CD	GLU	1	3.938	-31.652	29.346	1.00	0.00
ATOM	6	OE1	GLU	1	3.682	-32.182	30.446	1.00	0.00
ATOM	7	OE2	GLU	1	5.003	-31.074	29.039	1.00	0.00
ATOM	8	C	GLU	1	4.571	-31.518	25.695	1.00	0.00
ATOM	9	O	GLU	1	5.510	-30.744	25.876	1.00	0.00
ATOM	10	N	LYS	2	3.581	-31.258	24.834	1.00	0.00
ATOM	11	CA	LYS	2	3.506	-30.045	24.030	1.00	0.00
ATOM	12	CB	LYS	2	2.727	-30.334	22.736	1.00	0.00
ATOM	13	CG	LYS	2	3.267	-31.519	21.921	1.00	0.00
ATOM	14	CD	LYS	2	4.722	-31.328	21.471	1.00	0.00
ATOM	15	CE	LYS	2	5.145	-32.489	20.561	1.00	0.00
ATOM	16	NZ	LYS	2	6.541	-32.351	20.104	1.00	0.00
ATOM	17	C	LYS	2	2.859	-28.928	24.857	1.00	0.00
ATOM	18	O	LYS	2	1.795	-28.422	24.505	1.00	0.00
ATOM	19	N	HIS	3	3.508	-28.553	25.966	1.00	0.00
ATOM	20	CA	HIS	3	3.034	-27.521	26.880	1.00	0.00
ATOM	21	CB	HIS	3	3.890	-27.498	28.159	1.00	0.00
ATOM	22	CG	HIS	3	5.386	-27.552	27.945	1.00	0.00
ATOM	23	ND1	HIS	3	6.098	-28.735	28.061	1.00	0.00
ATOM	24	CE1	HIS	3	7.388	-28.457	27.815	1.00	0.00
ATOM	25	NE2	HIS	3	7.594	-27.167	27.544	1.00	0.00
ATOM	26	CD2	HIS	3	6.326	-26.598	27.630	1.00	0.00
ATOM	27	C	HIS	3	2.962	-26.155	26.191	1.00	0.00
ATOM	28	O	HIS	3	3.963	-25.452	26.093	1.00	0.00
ATOM	29	N	ARG	4	1.762	-25.783	25.723	1.00	0.00
ATOM	30	CA	ARG	4	1.476	-24.524	25.049	1.00	0.00
ATOM	31	CB	ARG	4	1.427	-23.397	26.092	1.00	0.00
ATOM	32	CG	ARG	4	0.754	-22.130	25.546	1.00	0.00
ATOM	33	CD	ARG	4	0.976	-20.958	26.505	1.00	0.00
ATOM	34	NE	ARG	4	0.361	-21.200	27.818	1.00	0.00
ATOM	35	CZ	ARG	4	0.578	-20.457	28.916	1.00	0.00
ATOM	36	NH1	ARG	4	1.390	-19.392	28.866	1.00	0.00
ATOM	37	NH2	ARG	4	-0.021	-20.784	30.068	1.00	0.00
ATOM	38	C	ARG	4	2.484	-24.264	23.926	1.00	0.00
ATOM	39	O	ARG	4	3.186	-23.253	23.930	1.00	0.00
ATOM	40	N	ALA	5	2.558	-25.181	22.956	1.00	0.00
ATOM	41	CA	ALA	5	3.480	-25.083	21.830	1.00	0.00
ATOM	42	CB	ALA	5	3.704	-26.488	21.256	1.00	0.00
ATOM	43	C	ALA	5	3.000	-24.091	20.759	1.00	0.00
ATOM	44	O	ALA	5	3.001	-24.418	19.573	1.00	0.00
ATOM	45	N	ARG	6	2.612	-22.875	21.167	1.00	0.00
ATOM	46	CA	ARG	6	2.165	-21.819	20.269	1.00	0.00

659				660					
ATOM	47	CB	ARG	6	1.087	-20.947	20.934	1.00	0.00
ATOM	48	CG	ARG	6	-0.308	-21.562	20.778	1.00	0.00
ATOM	49	CD	ARG	6	-0.884	-21.305	19.375	1.00	0.00
ATOM	50	NE	ARG	6	-2.128	-22.051	19.156	1.00	0.00
ATOM	51	CZ	ARG	6	-3.319	-21.820	19.726	1.00	0.00
ATOM	52	NH1	ARG	6	-4.287	-22.722	19.531	1.00	0.00
ATOM	53	NH2	ARG	6	-3.548	-20.726	20.462	1.00	0.00
ATOM	54	C	ARG	6	3.385	-20.991	19.881	1.00	0.00
ATOM	55	O	ARG	6	3.977	-20.321	20.725	1.00	0.00
ATOM	56	N	LYS	7	3.758	-21.064	18.602	1.00	0.00
ATOM	57	CA	LYS	7	4.904	-20.380	18.032	1.00	0.00
ATOM	58	CB	LYS	7	6.201	-21.090	18.471	1.00	0.00
ATOM	59	CG	LYS	7	6.173	-22.618	18.265	1.00	0.00
ATOM	60	CD	LYS	7	7.406	-23.283	18.884	1.00	0.00
ATOM	61	CE	LYS	7	7.290	-24.815	18.864	1.00	0.00
ATOM	62	NZ	LYS	7	7.290	-25.371	17.497	1.00	0.00
ATOM	63	C	LYS	7	4.732	-20.393	16.516	1.00	0.00
ATOM	64	O	LYS	7	4.536	-21.464	15.941	1.00	0.00
ATOM	65	N	ARG	8	4.791	-19.231	15.861	1.00	0.00
ATOM	66	CA	ARG	8	4.635	-19.171	14.414	1.00	0.00
ATOM	67	CB	ARG	8	4.276	-17.755	13.964	1.00	0.00
ATOM	68	CG	ARG	8	2.822	-17.480	14.336	1.00	0.00
ATOM	69	CD	ARG	8	1.856	-18.107	13.332	1.00	0.00
ATOM	70	NE	ARG	8	0.592	-18.437	14.001	1.00	0.00
ATOM	71	CZ	ARG	8	-0.630	-18.216	13.504	1.00	0.00
ATOM	72	NH1	ARG	8	-1.711	-18.393	14.270	1.00	0.00
ATOM	73	NH2	ARG	8	-0.764	-17.820	12.239	1.00	0.00
ATOM	74	C	ARG	8	5.915	-19.642	13.748	1.00	0.00
ATOM	75	O	ARG	8	6.925	-18.941	13.763	1.00	0.00
ATOM	76	N	GLN	9	5.866	-20.837	13.158	1.00	0.00
ATOM	77	CA	GLN	9	7.009	-21.409	12.482	1.00	0.00
ATOM	78	CB	GLN	9	6.965	-22.936	12.607	1.00	0.00
ATOM	79	CG	GLN	9	7.173	-23.339	14.072	1.00	0.00
ATOM	80	CD	GLN	9	6.955	-24.829	14.282	1.00	0.00
ATOM	81	OE1	GLN	9	6.040	-25.230	14.998	1.00	0.00
ATOM	82	NE2	GLN	9	7.808	-25.662	13.691	1.00	0.00
ATOM	83	C	GLN	9	6.968	-20.932	11.040	1.00	0.00
ATOM	84	O	GLN	9	6.400	-21.612	10.188	1.00	0.00
ATOM	85	N	ALA	10	7.574	-19.770	10.764	1.00	0.00
ATOM	86	CA	ALA	10	7.641	-19.225	9.413	1.00	0.00
ATOM	87	CB	ALA	10	8.507	-17.964	9.394	1.00	0.00
ATOM	88	C	ALA	10	8.219	-20.320	8.516	1.00	0.00
ATOM	89	O	ALA	10	9.187	-20.975	8.899	1.00	0.00
ATOM	90	N	TRP	11	7.608	-20.558	7.354	1.00	0.00
ATOM	91	CA	TRP	11	8.045	-21.632	6.481	1.00	0.00
ATOM	92	CB	TRP	11	6.997	-21.923	5.413	1.00	0.00
ATOM	93	CG	TRP	11	5.697	-22.504	5.901	1.00	0.00
ATOM	94	CD1	TRP	11	4.884	-22.000	6.859	1.00	0.00
ATOM	95	NE1	TRP	11	3.785	-22.817	7.033	1.00	0.00
ATOM	96	CE2	TRP	11	3.834	-23.898	6.181	1.00	0.00

661				662			
ATOM	97	CZ2 TRP	11	2.977 -24.987	5.965	1.00	0.00
ATOM	98	CH2 TRP	11	3.318 -25.938	4.996	1.00	0.00
ATOM	99	CZ3 TRP	11	4.500 -25.795	4.252	1.00	0.00
ATOM	100	CE3 TRP	11	5.352 -24.700	4.474	1.00	0.00
ATOM	101	CD2 TRP	11	5.045 -23.723	5.445	1.00	0.00
ATOM	102	C TRP	11	9.433 -21.359	5.904	1.00	0.00
ATOM	103	O TRP	11	9.750 -20.236	5.516	1.00	0.00
ATOM	104	N LEU	12	10.256 -22.409	5.885	1.00	0.00
ATOM	105	CA LEU	12	11.635 -22.372	5.415	1.00	0.00
ATOM	106	CB LEU	12	12.457 -23.438	6.164	1.00	0.00
ATOM	107	CG LEU	12	13.003 -23.018	7.539	1.00	0.00
ATOM	108	CD1 LEU	12	14.150 -22.007	7.414	1.00	0.00
ATOM	109	CD2 LEU	12	11.918 -22.466	8.468	1.00	0.00
ATOM	110	C LEU	12	11.710 -22.610	3.905	1.00	0.00
ATOM	111	O LEU	12	10.786 -23.162	3.310	1.00	0.00
ATOM	112	N TRP	13	12.841 -22.205	3.303	1.00	0.00
ATOM	113	CA TRP	13	13.134 -22.363	1.881	1.00	0.00
ATOM	114	CB TRP	13	14.641 -22.204	1.543	1.00	0.00
ATOM	115	CG TRP	13	15.551 -23.325	1.991	1.00	0.00
ATOM	116	CD1 TRP	13	15.554 -23.786	3.244	1.00	0.00
ATOM	117	NE1 TRP	13	16.444 -24.808	3.437	1.00	0.00
ATOM	118	CE2 TRP	13	17.066 -25.103	2.252	1.00	0.00
ATOM	119	CZ2 TRP	13	18.016 -26.074	1.912	1.00	0.00
ATOM	120	CH2 TRP	13	18.430 -26.170	0.582	1.00	0.00
ATOM	121	CZ3 TRP	13	17.897 -25.289	-0.370	1.00	0.00
ATOM	122	CE3 TRP	13	16.962 -24.299	-0.022	1.00	0.00
ATOM	123	CD2 TRP	13	16.511 -24.181	1.302	1.00	0.00
ATOM	124	C TRP	13	12.729 -23.732	1.367	1.00	0.00
ATOM	125	O TRP	13	12.091 -23.796	0.329	1.00	0.00
ATOM	126	N GLU	14	13.143 -24.801	2.066	1.00	0.00
ATOM	127	CA GLU	14	12.957 -26.170	1.666	1.00	0.00
ATOM	128	CB GLU	14	14.138 -27.066	2.074	1.00	0.00
ATOM	129	CG GLU	14	14.255 -28.318	1.192	1.00	0.00
ATOM	130	CD GLU	14	14.840 -29.503	1.951	1.00	0.00
ATOM	131	OE1 GLU	14	14.136 -30.536	2.024	1.00	0.00
ATOM	132	OE2 GLU	14	15.979 -29.347	2.439	1.00	0.00
ATOM	133	C GLU	14	11.541 -26.655	1.949	1.00	0.00
ATOM	134	O GLU	14	11.083 -27.582	1.294	1.00	0.00
ATOM	135	N GLU	15	10.811 -26.013	2.869	1.00	0.00
ATOM	136	CA GLU	15	9.418 -26.372	3.075	1.00	0.00
ATOM	137	CB GLU	15	8.861 -25.819	4.390	1.00	0.00
ATOM	138	CG GLU	15	9.529 -26.443	5.619	1.00	0.00
ATOM	139	CD GLU	15	8.840 -25.967	6.890	1.00	0.00
ATOM	140	OE1 GLU	15	9.085 -24.797	7.258	1.00	0.00
ATOM	141	OE2 GLU	15	8.047 -26.750	7.463	1.00	0.00
ATOM	142	C GLU	15	8.677 -25.843	1.844	1.00	0.00
ATOM	143	O GLU	15	7.951 -26.588	1.194	1.00	0.00
ATOM	144	N ASP	16	8.898 -24.570	1.488	1.00	0.00
ATOM	145	CA ASP	16	8.314 -23.965	0.294	1.00	0.00
ATOM	146	CB ASP	16	8.794 -22.510	0.141	1.00	0.00

(333)

特開2003-135087

663

664

ATOM	147	CG	ASP	16	8.089	-21.522	1.066	1.00	0.00
ATOM	148	OD1	ASP	16	7.741	-21.918	2.197	1.00	0.00
ATOM	149	OD2	ASP	16	7.876	-20.375	0.611	1.00	0.00
ATOM	150	C	ASP	16	8.742	-24.775	-0.937	1.00	0.00
ATOM	151	O	ASP	16	7.919	-25.116	-1.788	1.00	0.00
ATOM	152	N	LYS	17	10.045	-25.078	-1.012	1.00	0.00
ATOM	153	CA	LYS	17	10.686	-25.830	-2.078	1.00	0.00
ATOM	154	CB	LYS	17	12.180	-26.086	-1.733	1.00	0.00
ATOM	155	CG	LYS	17	12.902	-26.611	-2.984	1.00	0.00
ATOM	156	CD	LYS	17	14.202	-27.352	-2.647	1.00	0.00
ATOM	157	CE	LYS	17	15.279	-26.453	-2.035	1.00	0.00
ATOM	158	NZ	LYS	17	15.656	-25.352	-2.941	1.00	0.00
ATOM	159	C	LYS	17	9.946	-27.158	-2.296	1.00	0.00
ATOM	160	O	LYS	17	9.445	-27.442	-3.384	1.00	0.00
ATOM	161	N	ASN	18	9.902	-27.973	-1.240	1.00	0.00
ATOM	162	CA	ASN	18	9.290	-29.289	-1.214	1.00	0.00
ATOM	163	CB	ASN	18	9.581	-29.978	0.120	1.00	0.00
ATOM	164	CG	ASN	18	11.049	-30.375	0.284	1.00	0.00
ATOM	165	OD1	ASN	18	11.845	-30.231	-0.643	1.00	0.00
ATOM	166	ND2	ASN	18	11.416	-30.874	1.464	1.00	0.00
ATOM	167	C	ASN	18	7.789	-29.227	-1.457	1.00	0.00
ATOM	168	O	ASN	18	7.248	-30.126	-2.094	1.00	0.00
ATOM	169	N	LEU	19	7.114	-28.184	-0.968	1.00	0.00
ATOM	170	CA	LEU	19	5.683	-28.025	-1.160	1.00	0.00
ATOM	171	CB	LEU	19	5.177	-26.837	-0.332	1.00	0.00
ATOM	172	CG	LEU	19	3.652	-26.673	-0.386	1.00	0.00
ATOM	173	CD1	LEU	19	2.953	-27.917	0.166	1.00	0.00
ATOM	174	CD2	LEU	19	3.255	-25.440	0.434	1.00	0.00
ATOM	175	C	LEU	19	5.403	-27.857	-2.652	1.00	0.00
ATOM	176	O	LEU	19	4.580	-28.580	-3.215	1.00	0.00
ATOM	177	N	ARG	20	6.105	-26.916	-3.297	1.00	0.00
ATOM	178	CA	ARG	20	5.959	-26.664	-4.722	1.00	0.00
ATOM	179	CB	ARG	20	6.835	-25.473	-5.130	1.00	0.00
ATOM	180	CG	ARG	20	6.620	-25.118	-6.606	1.00	0.00
ATOM	181	CD	ARG	20	7.178	-23.728	-6.926	1.00	0.00
ATOM	182	NE	ARG	20	6.870	-23.349	-8.312	1.00	0.00
ATOM	183	CZ	ARG	20	7.138	-22.151	-8.861	1.00	0.00
ATOM	184	NH1	ARG	20	7.756	-21.200	-8.148	1.00	0.00
ATOM	185	NH2	ARG	20	6.785	-21.910	-10.130	1.00	0.00
ATOM	186	C	ARG	20	6.289	-27.932	-5.514	1.00	0.00
ATOM	187	O	ARG	20	5.546	-28.309	-6.418	1.00	0.00
ATOM	188	N	SER	21	7.393	-28.600	-5.158	1.00	0.00
ATOM	189	CA	SER	21	7.824	-29.841	-5.787	1.00	0.00
ATOM	190	CB	SER	21	9.130	-30.301	-5.130	1.00	0.00
ATOM	191	OG	SER	21	9.635	-31.467	-5.749	1.00	0.00
ATOM	192	C	SER	21	6.731	-30.908	-5.655	1.00	0.00
ATOM	193	O	SER	21	6.441	-31.637	-6.604	1.00	0.00
ATOM	194	N	GLY	22	6.127	-31.001	-4.467	1.00	0.00
ATOM	195	CA	GLY	22	5.070	-31.938	-4.143	1.00	0.00
ATOM	196	C	GLY	22	3.881	-31.730	-5.071	1.00	0.00

665					666				
ATOM	197	O	GLY	22	3.438	-32.673	-5.725	1.00	0.00
ATOM	198	N	VAL	23	3.384	-30.491	-5.137	1.00	0.00
ATOM	199	CA	VAL	23	2.265	-30.146	-6.002	1.00	0.00
ATOM	200	CB	VAL	23	1.820	-28.693	-5.772	1.00	0.00
ATOM	201	CG1	VAL	23	0.720	-28.299	-6.767	1.00	0.00
ATOM	202	CG2	VAL	23	1.264	-28.547	-4.350	1.00	0.00
ATOM	203	C	VAL	23	2.636	-30.430	-7.458	1.00	0.00
ATOM	204	O	VAL	23	1.817	-30.956	-8.204	1.00	0.00
ATOM	205	N	ARG	24	3.864	-30.115	-7.881	1.00	0.00
ATOM	206	CA	ARG	24	4.281	-30.390	-9.248	1.00	0.00
ATOM	207	CB	ARG	24	5.682	-29.819	-9.511	1.00	0.00
ATOM	208	CG	ARG	24	6.089	-30.032	-10.975	1.00	0.00
ATOM	209	CD	ARG	24	7.365	-29.256	-11.321	1.00	0.00
ATOM	210	NE	ARG	24	7.818	-29.546	-12.691	1.00	0.00
ATOM	211	CZ	ARG	24	7.268	-29.064	-13.821	1.00	0.00
ATOM	212	NH1	ARG	24	7.773	-29.423	-15.008	1.00	0.00
ATOM	213	NH2	ARG	24	6.222	-28.229	-13.771	1.00	0.00
ATOM	214	C	ARG	24	4.200	-31.892	-9.553	1.00	0.00
ATOM	215	O	ARG	24	3.825	-32.266	-10.662	1.00	0.00
ATOM	216	N	LYS	25	4.550	-32.750	-8.586	1.00	0.00
ATOM	217	CA	LYS	25	4.523	-34.197	-8.775	1.00	0.00
ATOM	218	CB	LYS	25	5.482	-34.907	-7.799	1.00	0.00
ATOM	219	CG	LYS	25	6.792	-35.350	-8.474	1.00	0.00
ATOM	220	CD	LYS	25	7.758	-34.195	-8.773	1.00	0.00
ATOM	221	CE	LYS	25	8.810	-34.016	-7.670	1.00	0.00
ATOM	222	NZ	LYS	25	8.200	-33.804	-6.347	1.00	0.00
ATOM	223	C	LYS	25	3.134	-34.831	-8.688	1.00	0.00
ATOM	224	O	LYS	25	2.839	-35.723	-9.481	1.00	0.00
ATOM	225	N	TYR	26	2.310	-34.431	-7.714	1.00	0.00
ATOM	226	CA	TYR	26	1.010	-35.055	-7.477	1.00	0.00
ATOM	227	CB	TYR	26	1.035	-35.647	-6.063	1.00	0.00
ATOM	228	CG	TYR	26	2.291	-36.452	-5.784	1.00	0.00
ATOM	229	CD1	TYR	26	2.525	-37.651	-6.480	1.00	0.00
ATOM	230	CE1	TYR	26	3.695	-38.390	-6.233	1.00	0.00
ATOM	231	CZ	TYR	26	4.632	-37.934	-5.290	1.00	0.00
ATOM	232	OH	TYR	26	5.764	-38.657	-5.057	1.00	0.00
ATOM	233	CE2	TYR	26	4.399	-36.734	-4.596	1.00	0.00
ATOM	234	CD2	TYR	26	3.230	-35.994	-4.844	1.00	0.00
ATOM	235	C	TYR	26	-0.198	-34.139	-7.643	1.00	0.00
ATOM	236	O	TYR	26	-1.292	-34.639	-7.903	1.00	0.00
ATOM	237	N	GLY	27	-0.013	-32.828	-7.482	1.00	0.00
ATOM	238	CA	GLY	27	-1.085	-31.842	-7.573	1.00	0.00
ATOM	239	C	GLY	27	-1.574	-31.439	-6.182	1.00	0.00
ATOM	240	O	GLY	27	-0.997	-31.837	-5.169	1.00	0.00
ATOM	241	N	GLU	28	-2.660	-30.659	-6.136	1.00	0.00
ATOM	242	CA	GLU	28	-3.292	-30.254	-4.892	1.00	0.00
ATOM	243	CB	GLU	28	-4.153	-28.996	-5.091	1.00	0.00
ATOM	244	CG	GLU	28	-3.320	-27.715	-5.278	1.00	0.00
ATOM	245	CD	GLU	28	-2.991	-27.359	-6.726	1.00	0.00
ATOM	246	OE1	GLU	28	-2.705	-26.157	-6.946	1.00	0.00

(335)

特開2003-135087

667				668				
ATOM	247	OE2	GLU	28	-3.035	-28.264	-7.585	1.00 0.00
ATOM	248	C	GLU	28	-4.143	-31.436	-4.410	1.00 0.00
ATOM	249	O	GLU	28	-4.537	-32.290	-5.203	1.00 0.00
ATOM	250	N	GLY	29	-4.421	-31.496	-3.107	1.00 0.00
ATOM	251	CA	GLY	29	-5.205	-32.575	-2.527	1.00 0.00
ATOM	252	C	GLY	29	-4.398	-33.868	-2.455	1.00 0.00
ATOM	253	O	GLY	29	-4.903	-34.943	-2.772	1.00 0.00
ATOM	254	N	ASN	30	-3.139	-33.739	-2.027	1.00 0.00
ATOM	255	CA	ASN	30	-2.186	-34.828	-1.852	1.00 0.00
ATOM	256	CB	ASN	30	-1.372	-35.032	-3.143	1.00 0.00
ATOM	257	CG	ASN	30	-2.209	-35.204	-4.406	1.00 0.00
ATOM	258	OD1	ASN	30	-2.263	-34.311	-5.240	1.00 0.00
ATOM	259	ND2	ASN	30	-2.847	-36.357	-4.592	1.00 0.00
ATOM	260	C	ASN	30	-1.241	-34.429	-0.715	1.00 0.00
ATOM	261	O	ASN	30	-0.057	-34.751	-0.753	1.00 0.00
ATOM	262	N	TRP	31	-1.734	-33.689	0.280	1.00 0.00
ATOM	263	CA	TRP	31	-0.918	-33.164	1.366	1.00 0.00
ATOM	264	CB	TRP	31	-1.671	-32.066	2.113	1.00 0.00
ATOM	265	CG	TRP	31	-2.393	-31.160	1.171	1.00 0.00
ATOM	266	CD1	TRP	31	-3.732	-31.057	1.046	1.00 0.00
ATOM	267	NE1	TRP	31	-4.034	-30.149	0.056	1.00 0.00
ATOM	268	CE2	TRP	31	-2.892	-29.617	-0.506	1.00 0.00
ATOM	269	CZ2	TRP	31	-2.673	-28.680	-1.524	1.00 0.00
ATOM	270	CH2	TRP	31	-1.356	-28.350	-1.873	1.00 0.00
ATOM	271	CZ3	TRP	31	-0.279	-28.956	-1.207	1.00 0.00
ATOM	272	CE3	TRP	31	-0.510	-29.894	-0.188	1.00 0.00
ATOM	273	CD2	TRP	31	-1.823	-30.247	0.191	1.00 0.00
ATOM	274	C	TRP	31	-0.317	-34.245	2.251	1.00 0.00
ATOM	275	O	TRP	31	0.876	-34.182	2.527	1.00 0.00
ATOM	276	N	SER	32	-1.097	-35.243	2.675	1.00 0.00
ATOM	277	CA	SER	32	-0.567	-36.338	3.484	1.00 0.00
ATOM	278	CB	SER	32	-1.692	-37.285	3.916	1.00 0.00
ATOM	279	OG	SER	32	-1.153	-38.335	4.693	1.00 0.00
ATOM	280	C	SER	32	0.548	-37.062	2.709	1.00 0.00
ATOM	281	O	SER	32	1.593	-37.395	3.269	1.00 0.00
ATOM	282	N	LYS	33	0.338	-37.285	1.405	1.00 0.00
ATOM	283	CA	LYS	33	1.305	-37.930	0.526	1.00 0.00
ATOM	284	CB	LYS	33	0.660	-38.107	-0.857	1.00 0.00
ATOM	285	CG	LYS	33	1.521	-38.912	-1.838	1.00 0.00
ATOM	286	CD	LYS	33	1.070	-38.701	-3.290	1.00 0.00
ATOM	287	CE	LYS	33	-0.369	-39.173	-3.547	1.00 0.00
ATOM	288	NZ	LYS	33	-0.784	-38.925	-4.942	1.00 0.00
ATOM	289	C	LYS	33	2.590	-37.092	0.465	1.00 0.00
ATOM	290	O	LYS	33	3.681	-37.597	0.724	1.00 0.00
ATOM	291	N	ILE	34	2.456	-35.806	0.128	1.00 0.00
ATOM	292	CA	ILE	34	3.559	-34.858	0.029	1.00 0.00
ATOM	293	CB	ILE	34	3.016	-33.488	-0.432	1.00 0.00
ATOM	294	CG2	ILE	34	4.062	-32.376	-0.301	1.00 0.00
ATOM	295	CG1	ILE	34	2.574	-33.578	-1.906	1.00 0.00
ATOM	296	CD1	ILE	34	1.713	-32.390	-2.353	1.00 0.00

(336)

特開2003-135087

669

670

ATOM	297	C	ILE	34	4.322	-34.812	1.360	1.00	0.00
ATOM	298	O	ILE	34	5.547	-34.824	1.357	1.00	0.00
ATOM	299	N	LEU	35	3.602	-34.778	2.488	1.00	0.00
ATOM	300	CA	LEU	35	4.148	-34.763	3.840	1.00	0.00
ATOM	301	CB	LEU	35	2.994	-34.619	4.848	1.00	0.00
ATOM	302	CG	LEU	35	3.361	-34.848	6.326	1.00	0.00
ATOM	303	CD1	LEU	35	4.345	-33.803	6.861	1.00	0.00
ATOM	304	CD2	LEU	35	2.082	-34.805	7.168	1.00	0.00
ATOM	305	C	LEU	35	4.968	-36.029	4.091	1.00	0.00
ATOM	306	O	LEU	35	6.040	-35.963	4.690	1.00	0.00
ATOM	307	N	LEU	36	4.474	-37.187	3.640	1.00	0.00
ATOM	308	CA	LEU	36	5.175	-38.449	3.826	1.00	0.00
ATOM	309	CB	LEU	36	4.320	-39.615	3.306	1.00	0.00
ATOM	310	CG	LEU	36	4.945	-41.002	3.538	1.00	0.00
ATOM	311	CD1	LEU	36	5.040	-41.346	5.030	1.00	0.00
ATOM	312	CD2	LEU	36	4.090	-42.059	2.831	1.00	0.00
ATOM	313	C	LEU	36	6.550	-38.392	3.160	1.00	0.00
ATOM	314	O	LEU	36	7.550	-38.730	3.793	1.00	0.00
ATOM	315	N	HIS	37	6.596	-37.959	1.894	1.00	0.00
ATOM	316	CA	HIS	37	7.840	-37.847	1.144	1.00	0.00
ATOM	317	CB	HIS	37	7.538	-37.511	-0.323	1.00	0.00
ATOM	318	CG	HIS	37	6.667	-38.520	-1.024	1.00	0.00
ATOM	319	ND1	HIS	37	7.028	-39.849	-1.181	1.00	0.00
ATOM	320	CE1	HIS	37	6.031	-40.456	-1.845	1.00	0.00
ATOM	321	NE2	HIS	37	5.027	-39.628	-2.144	1.00	0.00
ATOM	322	CD2	HIS	37	5.436	-38.406	-1.622	1.00	0.00
ATOM	323	C	HIS	37	8.744	-36.768	1.747	1.00	0.00
ATOM	324	O	HIS	37	9.885	-37.040	2.116	1.00	0.00
ATOM	325	N	TYR	38	8.219	-35.544	1.822	1.00	0.00
ATOM	326	CA	TYR	38	8.884	-34.358	2.321	1.00	0.00
ATOM	327	CB	TYR	38	8.589	-33.198	1.371	1.00	0.00
ATOM	328	CG	TYR	38	8.960	-33.440	-0.083	1.00	0.00
ATOM	329	CD1	TYR	38	7.951	-33.564	-1.055	1.00	0.00
ATOM	330	CE1	TYR	38	8.287	-33.773	-2.404	1.00	0.00
ATOM	331	CZ	TYR	38	9.636	-33.860	-2.786	1.00	0.00
ATOM	332	OH	TYR	38	9.959	-34.061	-4.097	1.00	0.00
ATOM	333	CE2	TYR	38	10.647	-33.740	-1.817	1.00	0.00
ATOM	334	CD2	TYR	38	10.310	-33.531	-0.467	1.00	0.00
ATOM	335	C	TYR	38	8.372	-34.057	3.724	1.00	0.00
ATOM	336	O	TYR	38	7.336	-33.417	3.898	1.00	0.00
ATOM	337	N	LYS	39	9.104	-34.534	4.727	1.00	0.00
ATOM	338	CA	LYS	39	8.753	-34.364	6.124	1.00	0.00
ATOM	339	CB	LYS	39	9.509	-35.407	6.956	1.00	0.00
ATOM	340	CG	LYS	39	9.218	-36.820	6.426	1.00	0.00
ATOM	341	CD	LYS	39	9.776	-37.889	7.372	1.00	0.00
ATOM	342	CE	LYS	39	9.768	-39.280	6.724	1.00	0.00
ATOM	343	NZ	LYS	39	8.432	-39.668	6.233	1.00	0.00
ATOM	344	C	LYS	39	9.012	-32.925	6.578	1.00	0.00
ATOM	345	O	LYS	39	10.110	-32.603	7.029	1.00	0.00
ATOM	346	N	PHE	40	7.990	-32.068	6.458	1.00	0.00

(337)

特開 2 0 0 3 - 1 3 5 0 8 7

671

672

ATOM	347	CA	PHE	40	8.037	-30.664	6.856	1.00	0.00
ATOM	348	CB	PHE	40	6.739	-29.971	6.423	1.00	0.00
ATOM	349	CG	PHE	40	6.374	-30.080	4.955	1.00	0.00
ATOM	350	CD1	PHE	40	5.367	-30.966	4.531	1.00	0.00
ATOM	351	CE1	PHE	40	5.025	-31.049	3.171	1.00	0.00
ATOM	352	CZ	PHE	40	5.686	-30.243	2.228	1.00	0.00
ATOM	353	CE2	PHE	40	6.692	-29.362	2.650	1.00	0.00
ATOM	354	CD2	PHE	40	7.034	-29.279	4.011	1.00	0.00
ATOM	355	C	PHE	40	8.209	-30.534	8.377	1.00	0.00
ATOM	356	O	PHE	40	8.222	-31.540	9.084	1.00	0.00
ATOM	357	N	ASN	41	8.329	-29.299	8.891	1.00	0.00
ATOM	358	CA	ASN	41	8.503	-29.049	10.323	1.00	0.00
ATOM	359	CB	ASN	41	8.484	-27.541	10.622	1.00	0.00
ATOM	360	CG	ASN	41	9.683	-26.778	10.061	1.00	0.00
ATOM	361	OD1	ASN	41	10.614	-27.362	9.513	1.00	0.00
ATOM	362	ND2	ASN	41	9.668	-25.453	10.207	1.00	0.00
ATOM	363	C	ASN	41	7.428	-29.757	11.154	1.00	0.00
ATOM	364	O	ASN	41	7.740	-30.617	11.974	1.00	0.00
ATOM	365	N	ASN	42	6.163	-29.386	10.935	1.00	0.00
ATOM	366	CA	ASN	42	4.988	-29.932	11.609	1.00	0.00
ATOM	367	CB	ASN	42	5.051	-29.745	13.138	1.00	0.00
ATOM	368	CG	ASN	42	5.533	-28.367	13.595	1.00	0.00
ATOM	369	OD1	ASN	42	6.641	-28.234	14.112	1.00	0.00
ATOM	370	ND2	ASN	42	4.708	-27.333	13.435	1.00	0.00
ATOM	371	C	ASN	42	3.757	-29.289	10.971	1.00	0.00
ATOM	372	O	ASN	42	3.005	-28.561	11.619	1.00	0.00
ATOM	373	N	ARG	43	3.583	-29.551	9.673	1.00	0.00
ATOM	374	CA	ARG	43	2.517	-29.009	8.850	1.00	0.00
ATOM	375	CB	ARG	43	3.123	-28.435	7.559	1.00	0.00
ATOM	376	CG	ARG	43	4.460	-27.701	7.748	1.00	0.00
ATOM	377	CD	ARG	43	4.402	-26.484	8.673	1.00	0.00
ATOM	378	NE	ARG	43	5.670	-25.748	8.592	1.00	0.00
ATOM	379	CZ	ARG	43	5.896	-24.532	9.107	1.00	0.00
ATOM	380	NH1	ARG	43	7.104	-23.977	8.982	1.00	0.00
ATOM	381	NH2	ARG	43	4.937	-23.854	9.748	1.00	0.00
ATOM	382	C	ARG	43	1.503	-30.106	8.523	1.00	0.00
ATOM	383	O	ARG	43	1.858	-31.108	7.905	1.00	0.00
ATOM	384	N	THR	44	0.244	-29.916	8.928	1.00	0.00
ATOM	385	CA	THR	44	-0.837	-30.860	8.665	1.00	0.00
ATOM	386	CB	THR	44	-1.973	-30.636	9.676	1.00	0.00
ATOM	387	CG2	THR	44	-1.479	-30.691	11.125	1.00	0.00
ATOM	388	OG1	THR	44	-2.599	-29.390	9.421	1.00	0.00
ATOM	389	C	THR	44	-1.378	-30.614	7.258	1.00	0.00
ATOM	390	O	THR	44	-0.993	-29.642	6.612	1.00	0.00
ATOM	391	N	SER	45	-2.303	-31.462	6.792	1.00	0.00
ATOM	392	CA	SER	45	-2.928	-31.272	5.491	1.00	0.00
ATOM	393	CB	SER	45	-3.912	-32.408	5.197	1.00	0.00
ATOM	394	OG	SER	45	-3.221	-33.634	5.076	1.00	0.00
ATOM	395	C	SER	45	-3.607	-29.897	5.442	1.00	0.00
ATOM	396	O	SER	45	-3.581	-29.240	4.404	1.00	0.00

(338)

特開2003-135087

673

674

ATOM	397	N	VAL	46	-4.185	-29.453	6.570	1.00	0.00
ATOM	398	CA	VAL	46	-4.826	-28.150	6.684	1.00	0.00
ATOM	399	CB	VAL	46	-5.446	-27.945	8.084	1.00	0.00
ATOM	400	CG1	VAL	46	-6.105	-26.566	8.193	1.00	0.00
ATOM	401	CG2	VAL	46	-6.495	-29.005	8.427	1.00	0.00
ATOM	402	C	VAL	46	-3.780	-27.069	6.418	1.00	0.00
ATOM	403	O	VAL	46	-3.969	-26.240	5.526	1.00	0.00
ATOM	404	N	MET	47	-2.687	-27.078	7.199	1.00	0.00
ATOM	405	CA	MET	47	-1.636	-26.078	7.052	1.00	0.00
ATOM	406	CB	MET	47	-0.498	-26.268	8.069	1.00	0.00
ATOM	407	CG	MET	47	-0.941	-26.433	9.528	1.00	0.00
ATOM	408	SD	MET	47	-2.380	-25.477	10.081	1.00	0.00
ATOM	409	CE	MET	47	-2.552	-26.168	11.745	1.00	0.00
ATOM	410	C	MET	47	-1.081	-26.070	5.628	1.00	0.00
ATOM	411	O	MET	47	-0.920	-25.008	5.041	1.00	0.00
ATOM	412	N	LEU	48	-0.789	-27.247	5.073	1.00	0.00
ATOM	413	CA	LEU	48	-0.251	-27.411	3.730	1.00	0.00
ATOM	414	CB	LEU	48	0.003	-28.901	3.468	1.00	0.00
ATOM	415	CG	LEU	48	1.246	-29.375	4.237	1.00	0.00
ATOM	416	CD1	LEU	48	1.245	-30.886	4.483	1.00	0.00
ATOM	417	CD2	LEU	48	2.508	-29.028	3.446	1.00	0.00
ATOM	418	C	LEU	48	-1.162	-26.787	2.675	1.00	0.00
ATOM	419	O	LEU	48	-0.691	-25.995	1.857	1.00	0.00
ATOM	420	N	LYS	49	-2.457	-27.128	2.694	1.00	0.00
ATOM	421	CA	LYS	49	-3.416	-26.582	1.752	1.00	0.00
ATOM	422	CB	LYS	49	-4.811	-27.185	2.003	1.00	0.00
ATOM	423	CG	LYS	49	-5.629	-27.275	0.713	1.00	0.00
ATOM	424	CD	LYS	49	-6.101	-25.933	0.139	1.00	0.00
ATOM	425	CE	LYS	49	-6.051	-26.032	-1.384	1.00	0.00
ATOM	426	NZ	LYS	49	-6.590	-24.824	-2.030	1.00	0.00
ATOM	427	C	LYS	49	-3.412	-25.059	1.867	1.00	0.00
ATOM	428	O	LYS	49	-3.187	-24.375	0.871	1.00	0.00
ATOM	429	N	ASP	50	-3.653	-24.545	3.078	1.00	0.00
ATOM	430	CA	ASP	50	-3.674	-23.119	3.384	1.00	0.00
ATOM	431	CB	ASP	50	-3.724	-22.938	4.908	1.00	0.00
ATOM	432	CG	ASP	50	-3.433	-21.501	5.316	1.00	0.00
ATOM	433	OD1	ASP	50	-2.264	-21.229	5.663	1.00	0.00
ATOM	434	OD2	ASP	50	-4.392	-20.703	5.298	1.00	0.00
ATOM	435	C	ASP	50	-2.454	-22.417	2.785	1.00	0.00
ATOM	436	O	ASP	50	-2.595	-21.472	2.012	1.00	0.00
ATOM	437	N	ARG	51	-1.262	-22.900	3.144	1.00	0.00
ATOM	438	CA	ARG	51	0.009	-22.366	2.687	1.00	0.00
ATOM	439	CB	ARG	51	1.160	-23.243	3.195	1.00	0.00
ATOM	440	CG	ARG	51	2.396	-22.437	3.577	1.00	0.00
ATOM	441	CD	ARG	51	2.959	-21.489	2.524	1.00	0.00
ATOM	442	NE	ARG	51	4.070	-20.744	3.119	1.00	0.00
ATOM	443	CZ	ARG	51	5.070	-20.132	2.478	1.00	0.00
ATOM	444	NH1	ARG	51	5.248	-20.301	1.164	1.00	0.00
ATOM	445	NH2	ARG	51	5.884	-19.341	3.181	1.00	0.00
ATOM	446	C	ARG	51	0.050	-22.282	1.166	1.00	0.00

675					676				
ATOM	447	O	ARG	51	0.348	-21.226	0.613	1.00	0.00
ATOM	448	N	TRP	52	-0.247	-23.390	0.477	1.00	0.00
ATOM	449	CA	TRP	52	-0.228	-23.405	-0.972	1.00	0.00
ATOM	450	CB	TRP	52	-0.420	-24.824	-1.499	1.00	0.00
ATOM	451	CG	TRP	52	-0.263	-24.927	-2.983	1.00	0.00
ATOM	452	CD1	TRP	52	-1.233	-25.302	-3.840	1.00	0.00
ATOM	453	NE1	TRP	52	-0.753	-25.288	-5.131	1.00	0.00
ATOM	454	CE2	TRP	52	0.567	-24.886	-5.169	1.00	0.00
ATOM	455	CZ2	TRP	52	1.481	-24.706	-6.217	1.00	0.00
ATOM	456	CH2	TRP	52	2.785	-24.281	-5.920	1.00	0.00
ATOM	457	CZ3	TRP	52	3.159	-24.044	-4.586	1.00	0.00
ATOM	458	CE3	TRP	52	2.232	-24.226	-3.543	1.00	0.00
ATOM	459	CD2	TRP	52	0.911	-24.652	-3.805	1.00	0.00
ATOM	460	C	TRP	52	-1.258	-22.432	-1.548	1.00	0.00
ATOM	461	O	TRP	52	-0.978	-21.770	-2.543	1.00	0.00
ATOM	462	N	ARG	53	-2.440	-22.327	-0.929	1.00	0.00
ATOM	463	CA	ARG	53	-3.485	-21.413	-1.371	1.00	0.00
ATOM	464	CB	ARG	53	-4.740	-21.579	-0.498	1.00	0.00
ATOM	465	CG	ARG	53	-6.001	-21.140	-1.252	1.00	0.00
ATOM	466	CD	ARG	53	-7.270	-21.448	-0.447	1.00	0.00
ATOM	467	NE	ARG	53	-7.607	-20.372	0.502	1.00	0.00
ATOM	468	CZ	ARG	53	-8.712	-19.602	0.458	1.00	0.00
ATOM	469	NH1	ARG	53	-9.010	-18.777	1.467	1.00	0.00
ATOM	470	NH2	ARG	53	-9.560	-19.639	-0.575	1.00	0.00
ATOM	471	C	ARG	53	-2.926	-19.989	-1.340	1.00	0.00
ATOM	472	O	ARG	53	-3.043	-19.252	-2.320	1.00	0.00
ATOM	473	N	THR	54	-2.290	-19.626	-0.220	1.00	0.00
ATOM	474	CA	THR	54	-1.654	-18.332	-0.039	1.00	0.00
ATOM	475	CB	THR	54	-1.097	-18.219	1.385	1.00	0.00
ATOM	476	CG2	THR	54	-0.503	-16.832	1.644	1.00	0.00
ATOM	477	OG1	THR	54	-2.148	-18.447	2.302	1.00	0.00
ATOM	478	C	THR	54	-0.563	-18.146	-1.097	1.00	0.00
ATOM	479	O	THR	54	-0.465	-17.071	-1.678	1.00	0.00
ATOM	480	N	MET	55	0.245	-19.183	-1.358	1.00	0.00
ATOM	481	CA	MET	55	1.313	-19.149	-2.350	1.00	0.00
ATOM	482	CB	MET	55	2.022	-20.519	-2.410	1.00	0.00
ATOM	483	CG	MET	55	3.470	-20.453	-2.918	1.00	0.00
ATOM	484	SD	MET	55	3.789	-19.576	-4.472	1.00	0.00
ATOM	485	CE	MET	55	2.826	-20.541	-5.662	1.00	0.00
ATOM	486	C	MET	55	0.733	-18.742	-3.710	1.00	0.00
ATOM	487	O	MET	55	1.177	-17.757	-4.300	1.00	0.00
ATOM	488	N	LYS	56	-0.264	-19.499	-4.194	1.00	0.00
ATOM	489	CA	LYS	56	-0.931	-19.248	-5.467	1.00	0.00
ATOM	490	CB	LYS	56	-2.091	-20.234	-5.682	1.00	0.00
ATOM	491	CG	LYS	56	-1.608	-21.682	-5.840	1.00	0.00
ATOM	492	CD	LYS	56	-2.784	-22.644	-6.060	1.00	0.00
ATOM	493	CE	LYS	56	-3.218	-22.700	-7.528	1.00	0.00
ATOM	494	NZ	LYS	56	-4.011	-23.910	-7.819	1.00	0.00
ATOM	495	C	LYS	56	-1.426	-17.804	-5.517	1.00	0.00
ATOM	496	O	LYS	56	-1.140	-17.092	-6.472	1.00	0.00

(340)

特開2003-135087

677

678

ATOM	497	N	LYS	57	-2.154	-17.379	-4.481	1.00	0.00
ATOM	498	CA	LYS	57	-2.693	-16.031	-4.348	1.00	0.00
ATOM	499	CB	LYS	57	-3.493	-15.975	-3.033	1.00	0.00
ATOM	500	CG	LYS	57	-3.876	-14.578	-2.519	1.00	0.00
ATOM	501	CD	LYS	57	-2.707	-13.851	-1.829	1.00	0.00
ATOM	502	CE	LYS	57	-3.113	-13.249	-0.480	1.00	0.00
ATOM	503	NZ	LYS	57	-2.015	-12.457	0.104	1.00	0.00
ATOM	504	C	LYS	57	-1.596	-14.959	-4.423	1.00	0.00
ATOM	505	O	LYS	57	-1.786	-13.928	-5.061	1.00	0.00
ATOM	506	N	LEU	58	-0.463	-15.187	-3.750	1.00	0.00
ATOM	507	CA	LEU	58	0.648	-14.249	-3.665	1.00	0.00
ATOM	508	CB	LEU	58	1.540	-14.657	-2.476	1.00	0.00
ATOM	509	CG	LEU	58	2.443	-13.552	-1.898	1.00	0.00
ATOM	510	CD1	LEU	58	3.249	-14.147	-0.736	1.00	0.00
ATOM	511	CD2	LEU	58	3.420	-12.954	-2.913	1.00	0.00
ATOM	512	C	LEU	58	1.423	-14.149	-4.982	1.00	0.00
ATOM	513	O	LEU	58	1.471	-13.082	-5.591	1.00	0.00
ATOM	514	N	LYS	59	2.052	-15.246	-5.417	1.00	0.00
ATOM	515	CA	LYS	59	2.867	-15.265	-6.628	1.00	0.00
ATOM	516	CB	LYS	59	3.860	-16.437	-6.576	1.00	0.00
ATOM	517	CG	LYS	59	4.781	-16.416	-5.346	1.00	0.00
ATOM	518	CD	LYS	59	5.736	-15.214	-5.319	1.00	0.00
ATOM	519	CE	LYS	59	6.597	-15.263	-4.050	1.00	0.00
ATOM	520	NZ	LYS	59	7.479	-14.086	-3.940	1.00	0.00
ATOM	521	C	LYS	59	2.052	-15.292	-7.924	1.00	0.00
ATOM	522	O	LYS	59	2.625	-15.081	-8.990	1.00	0.00
ATOM	523	N	LEU	60	0.741	-15.547	-7.847	1.00	0.00
ATOM	524	CA	LEU	60	-0.157	-15.610	-8.992	1.00	0.00
ATOM	525	CB	LEU	60	-0.289	-14.230	-9.664	1.00	0.00
ATOM	526	CG	LEU	60	-1.415	-14.140	-10.709	1.00	0.00
ATOM	527	CD1	LEU	60	-2.805	-14.317	-10.085	1.00	0.00
ATOM	528	CD2	LEU	60	-1.346	-12.770	-11.393	1.00	0.00
ATOM	529	C	LEU	60	0.270	-16.734	-9.934	1.00	0.00
ATOM	530	O	LEU	60	0.708	-16.494	-11.058	1.00	0.00
ATOM	531	N	ILE	61	0.134	-17.974	-9.449	1.00	0.00
ATOM	532	CA	ILE	61	0.469	-19.189	-10.177	1.00	0.00
ATOM	533	CB	ILE	61	1.765	-19.815	-9.624	1.00	0.00
ATOM	534	CG2	ILE	61	2.110	-21.096	-10.400	1.00	0.00
ATOM	535	CG1	ILE	61	2.920	-18.796	-9.698	1.00	0.00
ATOM	536	CD1	ILE	61	4.290	-19.377	-9.333	1.00	0.00
ATOM	537	C	ILE	61	-0.720	-20.137	-10.044	1.00	0.00
ATOM	538	O	ILE	61	-1.159	-20.419	-8.932	1.00	0.00
ATOM	539	N	SER	62	-1.240	-20.622	-11.176	1.00	0.00
ATOM	540	CA	SER	62	-2.363	-21.550	-11.258	1.00	0.00
ATOM	541	CB	SER	62	-3.698	-20.809	-11.081	1.00	0.00
ATOM	542	OG	SER	62	-3.819	-20.289	-9.771	1.00	0.00
ATOM	543	C	SER	62	-2.220	-22.315	-12.580	1.00	0.00
ATOM	544	O	SER	62	-1.133	-22.824	-12.847	1.00	0.00
ATOM	545	N	SER	63	-3.267	-22.408	-13.407	1.00	0.00
ATOM	546	CA	SER	63	-3.191	-23.111	-14.682	1.00	0.00

679					680				
ATOM	547	CB	SER	63	-4.583	-23.599	-15.092	1.00	0.00
ATOM	548	OG	SER	63	-5.083	-24.492	-14.116	1.00	0.00
ATOM	549	C	SER	63	-2.574	-22.189	-15.736	1.00	0.00
ATOM	550	O	SER	63	-2.761	-20.974	-15.685	1.00	0.00
ATOM	551	N	ASP	64	-1.828	-22.768	-16.684	1.00	0.00
ATOM	552	CA	ASP	64	-1.145	-22.046	-17.749	1.00	0.00
ATOM	553	CB	ASP	64	-0.383	-23.041	-18.639	1.00	0.00
ATOM	554	CG	ASP	64	0.592	-23.895	-17.835	1.00	0.00
ATOM	555	OD1	ASP	64	0.095	-24.827	-17.164	1.00	0.00
ATOM	556	OD2	ASP	64	1.804	-23.602	-17.901	1.00	0.00
ATOM	557	C	ASP	64	-2.123	-21.201	-18.567	1.00	0.00
ATOM	558	O	ASP	64	-2.020	-19.975	-18.588	1.00	0.00
ATOM	559	N	SER	65	-3.070	-21.860	-19.243	1.00	0.00
ATOM	560	CA	SER	65	-4.074	-21.204	-20.070	1.00	0.00
ATOM	561	CB	SER	65	-4.609	-22.200	-21.105	1.00	0.00
ATOM	562	OG	SER	65	-3.530	-22.770	-21.821	1.00	0.00
ATOM	563	C	SER	65	-5.194	-20.637	-19.195	1.00	0.00
ATOM	564	O	SER	65	-5.503	-19.451	-19.280	1.00	0.00
ATOM	565	N	GLU	66	-5.788	-21.496	-18.358	1.00	0.00
ATOM	566	CA	GLU	66	-6.871	-21.166	-17.439	1.00	0.00
ATOM	567	CB	GLU	66	-6.332	-20.306	-16.283	1.00	0.00
ATOM	568	CG	GLU	66	-7.211	-20.417	-15.028	1.00	0.00
ATOM	569	CD	GLU	66	-6.419	-20.079	-13.771	1.00	0.00
ATOM	570	OE1	GLU	66	-5.670	-20.978	-13.328	1.00	0.00
ATOM	571	OE2	GLU	66	-6.566	-18.942	-13.277	1.00	0.00
ATOM	572	C	GLU	66	-8.061	-20.549	-18.183	1.00	0.00
ATOM	573	O	GLU	66	-8.514	-19.450	-17.864	1.00	0.00
ATOM	574	N	ASP	67	-8.554	-21.282	-19.185	1.00	0.00
ATOM	575	CA	ASP	67	-9.671	-20.896	-20.033	1.00	0.00
ATOM	576	CB	ASP	67	-9.779	-21.879	-21.208	1.00	0.00
ATOM	577	CG	ASP	67	-8.455	-22.055	-21.945	1.00	0.00
ATOM	578	OD1	ASP	67	-7.618	-22.823	-21.420	1.00	0.00
ATOM	579	OD2	ASP	67	-8.296	-21.423	-23.012	1.00	0.00
ATOM	580	C	ASP	67	-10.973	-20.871	-19.227	1.00	0.00
ATOM	581	OT1	ASP	67	-11.172	-21.833	-18.452	1.00	0.00
ATOM	582	OT2	ASP	67	-11.859	-20.083	-19.627	1.00	0.00
ATOM	583	O5'	GUA	68	-7.124	-40.850	11.024	1.00	0.00
ATOM	584	C5'	GUA	68	-6.866	-41.551	9.824	1.00	0.00
ATOM	585	C4'	GUA	68	-7.113	-40.669	8.596	1.00	0.00
ATOM	586	O4'	GUA	68	-8.422	-40.134	8.595	1.00	0.00
ATOM	587	C1'	GUA	68	-8.447	-39.074	7.667	1.00	0.00
ATOM	588	N9	GUA	68	-9.600	-38.184	7.911	1.00	0.00
ATOM	589	C8	GUA	68	-9.999	-37.633	9.098	1.00	0.00
ATOM	590	N7	GUA	68	-11.083	-36.914	9.018	1.00	0.00
ATOM	591	C5	GUA	68	-11.415	-36.968	7.667	1.00	0.00
ATOM	592	C6	GUA	68	-12.494	-36.359	6.957	1.00	0.00
ATOM	593	O6	GUA	68	-13.428	-35.699	7.412	1.00	0.00
ATOM	594	N1	GUA	68	-12.414	-36.575	5.586	1.00	0.00
ATOM	595	C2	GUA	68	-11.434	-37.327	4.968	1.00	0.00
ATOM	596	N2	GUA	68	-11.464	-37.422	3.638	1.00	0.00

681				682			
ATOM	597	N3 GUA	68	-10.446	-37.936	5.636	1.00 0.00
ATOM	598	C4 GUA	68	-10.490	-37.714	6.976	1.00 0.00
ATOM	599	C3' GUA	68	-6.183	-39.449	8.496	1.00 0.00
ATOM	600	C2' GUA	68	-7.138	-38.371	7.967	1.00 0.00
ATOM	601	O3' GUA	68	-5.115	-39.765	7.613	1.00 0.00
ATOM	602	P THY	69	-3.962	-38.706	7.187	1.00 0.00
ATOM	603	OP1 THY	69	-2.907	-39.435	6.448	1.00 0.00
ATOM	604	OP2 THY	69	-3.609	-37.894	8.372	1.00 0.00
ATOM	605	O5' THY	69	-4.714	-37.759	6.126	1.00 0.00
ATOM	606	C5' THY	69	-5.401	-38.320	5.023	1.00 0.00
ATOM	607	C4' THY	69	-6.379	-37.321	4.398	1.00 0.00
ATOM	608	O4' THY	69	-7.443	-36.858	5.194	1.00 0.00
ATOM	609	C1' THY	69	-7.912	-35.649	4.642	1.00 0.00
ATOM	610	N1 THY	69	-8.788	-34.958	5.624	1.00 0.00
ATOM	611	C6 THY	69	-8.459	-34.976	6.958	1.00 0.00
ATOM	612	C5 THY	69	-9.234	-34.354	7.881	1.00 0.00
ATOM	613	C7 THY	69	-8.750	-34.405	9.319	1.00 0.00
ATOM	614	C4 THY	69	-10.456	-33.670	7.506	1.00 0.00
ATOM	615	O4 THY	69	-11.215	-33.081	8.271	1.00 0.00
ATOM	616	N3 THY	69	-10.739	-33.728	6.151	1.00 0.00
ATOM	617	C2 THY	69	-9.956	-34.335	5.179	1.00 0.00
ATOM	618	O2 THY	69	-10.301	-34.309	4.002	1.00 0.00
ATOM	619	C3' THY	69	-5.691	-36.058	3.875	1.00 0.00
ATOM	620	C2' THY	69	-6.582	-34.936	4.426	1.00 0.00
ATOM	621	O3' THY	69	-5.618	-36.114	2.463	1.00 0.00
ATOM	622	P THY	70	-4.788	-35.023	1.620	1.00 0.00
ATOM	623	OP1 THY	70	-3.754	-34.453	2.513	1.00 0.00
ATOM	624	OP2 THY	70	-4.371	-35.627	0.339	1.00 0.00
ATOM	625	O5' THY	70	-5.894	-33.892	1.321	1.00 0.00
ATOM	626	C5' THY	70	-7.004	-34.169	0.483	1.00 0.00
ATOM	627	C4' THY	70	-8.068	-33.071	0.585	1.00 0.00
ATOM	628	O4' THY	70	-8.537	-32.941	1.906	1.00 0.00
ATOM	629	C1' THY	70	-9.193	-31.697	1.999	1.00 0.00
ATOM	630	N1 THY	70	-9.372	-31.317	3.419	1.00 0.00
ATOM	631	C6 THY	70	-8.358	-31.545	4.314	1.00 0.00
ATOM	632	C5 THY	70	-8.520	-31.280	5.632	1.00 0.00
ATOM	633	C7 THY	70	-7.336	-31.619	6.511	1.00 0.00
ATOM	634	C4 THY	70	-9.754	-30.726	6.152	1.00 0.00
ATOM	635	O4 THY	70	-9.968	-30.413	7.321	1.00 0.00
ATOM	636	N3 THY	70	-10.738	-30.563	5.193	1.00 0.00
ATOM	637	C2 THY	70	-10.592	-30.786	3.833	1.00 0.00
ATOM	638	O2 THY	70	-11.492	-30.483	3.055	1.00 0.00
ATOM	639	C3' THY	70	-7.577	-31.665	0.215	1.00 0.00
ATOM	640	C2' THY	70	-8.232	-30.763	1.274	1.00 0.00
ATOM	641	O3' THY	70	-7.969	-31.395	-1.121	1.00 0.00
ATOM	642	P ADE	71	-7.578	-30.031	-1.885	1.00 0.00
ATOM	643	OP1 ADE	71	-6.248	-29.583	-1.412	1.00 0.00
ATOM	644	OP2 ADE	71	-7.822	-30.204	-3.332	1.00 0.00
ATOM	645	O5' ADE	71	-8.667	-29.009	-1.307	1.00 0.00
ATOM	646	C5' ADE	71	-10.054	-29.150	-1.560	1.00 0.00

(343)

特開2003-135087

683

684

ATOM	647	C4'	ADE	71	-10.829	-28.066	-0.797	1.00	0.00
ATOM	648	O4'	ADE	71	-10.980	-28.390	0.588	1.00	0.00
ATOM	649	C1'	ADE	71	-10.766	-27.212	1.342	1.00	0.00
ATOM	650	N9	ADE	71	-10.446	-27.416	2.776	1.00	0.00
ATOM	651	C8	ADE	71	-9.291	-27.916	3.319	1.00	0.00
ATOM	652	N7	ADE	71	-9.238	-27.899	4.619	1.00	0.00
ATOM	653	C5	ADE	71	-10.443	-27.310	4.971	1.00	0.00
ATOM	654	C6	ADE	71	-11.008	-26.984	6.215	1.00	0.00
ATOM	655	N6	ADE	71	-10.399	-27.287	7.362	1.00	0.00
ATOM	656	N1	ADE	71	-12.191	-26.342	6.243	1.00	0.00
ATOM	657	C2	ADE	71	-12.781	-26.043	5.086	1.00	0.00
ATOM	658	N3	ADE	71	-12.369	-26.322	3.851	1.00	0.00
ATOM	659	C4	ADE	71	-11.173	-26.972	3.859	1.00	0.00
ATOM	660	C3'	ADE	71	-10.060	-26.732	-0.831	1.00	0.00
ATOM	661	C2'	ADE	71	-9.538	-26.714	0.603	1.00	0.00
ATOM	662	O3'	ADE	71	-10.928	-25.658	-1.111	1.00	0.00
ATOM	663	P	GUA	72	-10.360	-24.198	-1.470	1.00	0.00
ATOM	664	OP1	GUA	72	-10.665	-23.893	-2.882	1.00	0.00
ATOM	665	OP2	GUA	72	-8.961	-24.095	-0.992	1.00	0.00
ATOM	666	O5'	GUA	72	-11.262	-23.276	-0.534	1.00	0.00
ATOM	667	C5'	GUA	72	-12.662	-23.184	-0.710	1.00	0.00
ATOM	668	C4'	GUA	72	-13.221	-22.297	0.403	1.00	0.00
ATOM	669	O4'	GUA	72	-12.957	-22.922	1.651	1.00	0.00
ATOM	670	C1'	GUA	72	-12.303	-22.022	2.519	1.00	0.00
ATOM	671	N9	GUA	72	-11.403	-22.739	3.456	1.00	0.00
ATOM	672	C8	GUA	72	-10.240	-23.413	3.178	1.00	0.00
ATOM	673	N7	GUA	72	-9.638	-23.910	4.220	1.00	0.00
ATOM	674	C5	GUA	72	-10.465	-23.549	5.277	1.00	0.00
ATOM	675	C6	GUA	72	-10.331	-23.804	6.674	1.00	0.00
ATOM	676	O6	GUA	72	-9.406	-24.371	7.253	1.00	0.00
ATOM	677	N1	GUA	72	-11.414	-23.333	7.407	1.00	0.00
ATOM	678	C2	GUA	72	-12.492	-22.661	6.865	1.00	0.00
ATOM	679	N2	GUA	72	-13.441	-22.230	7.697	1.00	0.00
ATOM	680	N3	GUA	72	-12.598	-22.381	5.558	1.00	0.00
ATOM	681	C4	GUA	72	-11.562	-22.856	4.818	1.00	0.00
ATOM	682	C3'	GUA	72	-12.508	-20.938	0.422	1.00	0.00
ATOM	683	C2'	GUA	72	-11.511	-21.142	1.559	1.00	0.00
ATOM	684	O3'	GUA	72	-13.435	-19.903	0.675	1.00	0.00
ATOM	685	P	GUA	73	-13.013	-18.344	0.738	1.00	0.00
ATOM	686	OP1	GUA	73	-13.928	-17.576	-0.133	1.00	0.00
ATOM	687	OP2	GUA	73	-11.544	-18.225	0.557	1.00	0.00
ATOM	688	O5'	GUA	73	-13.362	-18.019	2.272	1.00	0.00
ATOM	689	C5'	GUA	73	-14.694	-18.122	2.744	1.00	0.00
ATOM	690	C4'	GUA	73	-14.746	-18.025	4.270	1.00	0.00
ATOM	691	O4'	GUA	73	-13.855	-18.976	4.833	1.00	0.00
ATOM	692	C1'	GUA	73	-13.015	-18.339	5.773	1.00	0.00
ATOM	693	N9	GUA	73	-11.712	-19.031	5.859	1.00	0.00
ATOM	694	C8	GUA	73	-10.795	-19.263	4.868	1.00	0.00
ATOM	695	N7	GUA	73	-9.746	-19.937	5.247	1.00	0.00
ATOM	696	C5	GUA	73	-9.978	-20.162	6.599	1.00	0.00

685					686				
ATOM	697	C6	GUA	73	-9.187	-20.848	7.565	1.00	0.00
ATOM	698	O6	GUA	73	-8.099	-21.392	7.398	1.00	0.00
ATOM	699	N1	GUA	73	-9.788	-20.874	8.820	1.00	0.00
ATOM	700	C2	GUA	73	-11.005	-20.294	9.118	1.00	0.00
ATOM	701	N2	GUA	73	-11.439	-20.345	10.378	1.00	0.00
ATOM	702	N3	GUA	73	-11.740	-19.634	8.217	1.00	0.00
ATOM	703	C4	GUA	73	-11.177	-19.608	6.982	1.00	0.00
ATOM	704	C3'	GUA	73	-14.320	-16.655	4.816	1.00	0.00
ATOM	705	C2'	GUA	73	-12.871	-16.932	5.206	1.00	0.00
ATOM	706	O3'	GUA	73	-15.151	-16.361	5.926	1.00	0.00
ATOM	707	P	GUA	74	-15.023	-15.007	6.792	1.00	0.00
ATOM	708	OP1	GUA	74	-16.383	-14.461	6.998	1.00	0.00
ATOM	709	OP2	GUA	74	-13.971	-14.153	6.199	1.00	0.00
ATOM	710	O5'	GUA	74	-14.482	-15.572	8.199	1.00	0.00
ATOM	711	C5'	GUA	74	-15.278	-16.440	8.988	1.00	0.00
ATOM	712	C4'	GUA	74	-14.597	-16.767	10.321	1.00	0.00
ATOM	713	O4'	GUA	74	-13.358	-17.417	10.087	1.00	0.00
ATOM	714	C1'	GUA	74	-12.302	-16.745	10.744	1.00	0.00
ATOM	715	N9	GUA	74	-11.092	-16.831	9.894	1.00	0.00
ATOM	716	C8	GUA	74	-10.959	-16.403	8.597	1.00	0.00
ATOM	717	N7	GUA	74	-9.829	-16.720	8.036	1.00	0.00
ATOM	718	C5	GUA	74	-9.156	-17.417	9.029	1.00	0.00
ATOM	719	C6	GUA	74	-7.883	-18.054	8.984	1.00	0.00
ATOM	720	O6	GUA	74	-7.115	-18.136	8.032	1.00	0.00
ATOM	721	N1	GUA	74	-7.541	-18.647	10.192	1.00	0.00
ATOM	722	C2	GUA	74	-8.341	-18.658	11.312	1.00	0.00
ATOM	723	N2	GUA	74	-7.829	-19.211	12.415	1.00	0.00
ATOM	724	N3	GUA	74	-9.552	-18.079	11.351	1.00	0.00
ATOM	725	C4	GUA	74	-9.907	-17.478	10.180	1.00	0.00
ATOM	726	C3'	GUA	74	-14.295	-15.513	11.153	1.00	0.00
ATOM	727	C2'	GUA	74	-12.808	-15.307	10.869	1.00	0.00
ATOM	728	O3'	GUA	74	-14.588	-15.788	12.513	1.00	0.00
ATOM	729	P	THY	75	-14.433	-14.681	13.680	1.00	0.00
ATOM	730	OP1	THY	75	-15.321	-15.057	14.801	1.00	0.00
ATOM	731	OP2	THY	75	-14.533	-13.333	13.079	1.00	0.00
ATOM	732	O5'	THY	75	-12.913	-14.920	14.141	1.00	0.00
ATOM	733	C5'	THY	75	-12.533	-16.133	14.759	1.00	0.00
ATOM	734	C4'	THY	75	-11.010	-16.234	14.825	1.00	0.00
ATOM	735	O4'	THY	75	-10.435	-16.093	13.542	1.00	0.00
ATOM	736	C1'	THY	75	-9.085	-15.743	13.735	1.00	0.00
ATOM	737	N1	THY	75	-8.455	-15.284	12.463	1.00	0.00
ATOM	738	C6	THY	75	-9.135	-14.465	11.591	1.00	0.00
ATOM	739	C5	THY	75	-8.641	-14.181	10.357	1.00	0.00
ATOM	740	C7	THY	75	-9.495	-13.280	9.484	1.00	0.00
ATOM	741	C4	THY	75	-7.372	-14.721	9.904	1.00	0.00
ATOM	742	O4	THY	75	-6.864	-14.574	8.792	1.00	0.00
ATOM	743	N3	THY	75	-6.729	-15.481	10.860	1.00	0.00
ATOM	744	C2	THY	75	-7.203	-15.797	12.123	1.00	0.00
ATOM	745	O2	THY	75	-6.533	-16.498	12.875	1.00	0.00
ATOM	746	C3'	THY	75	-10.345	-15.152	15.688	1.00	0.00

687				688				
ATOM	747	C2' THY	75	-9.233	-14.631	14.765	1.00	0.00
ATOM	748	O3' THY	75	-9.876	-15.771	16.875	1.00	0.00
ATOM	749	P THY	76	-9.045	-14.991	18.019	1.00	0.00
ATOM	750	OP1 THY	76	-9.025	-13.544	17.704	1.00	0.00
ATOM	751	OP2 THY	76	-9.515	-15.457	19.342	1.00	0.00
ATOM	752	O5' THY	76	-7.564	-15.576	17.771	1.00	0.00
ATOM	753	C5' THY	76	-7.293	-16.958	17.926	1.00	0.00
ATOM	754	C4' THY	76	-5.860	-17.267	17.484	1.00	0.00
ATOM	755	O4' THY	76	-5.689	-16.812	16.152	1.00	0.00
ATOM	756	C1' THY	76	-4.483	-16.093	16.023	1.00	0.00
ATOM	757	N1 THY	76	-4.636	-15.094	14.922	1.00	0.00
ATOM	758	C6 THY	76	-5.565	-14.083	15.026	1.00	0.00
ATOM	759	C5 THY	76	-5.794	-13.223	14.001	1.00	0.00
ATOM	760	C7 THY	76	-6.831	-12.135	14.219	1.00	0.00
ATOM	761	C4 THY	76	-5.084	-13.337	12.747	1.00	0.00
ATOM	762	O4 THY	76	-5.257	-12.614	11.770	1.00	0.00
ATOM	763	N3 THY	76	-4.170	-14.376	12.703	1.00	0.00
ATOM	764	C2 THY	76	-3.920	-15.273	13.734	1.00	0.00
ATOM	765	O2 THY	76	-3.100	-16.173	13.573	1.00	0.00
ATOM	766	C3' THY	76	-4.808	-16.557	18.346	1.00	0.00
ATOM	767	C2' THY	76	-4.291	-15.465	17.407	1.00	0.00
ATOM	768	O3' THY	76	-3.810	-17.488	18.737	1.00	0.00
ATOM	769	P ADE	77	-2.658	-17.122	19.812	1.00	0.00
ATOM	770	OP1 ADE	77	-2.179	-18.394	20.403	1.00	0.00
ATOM	771	OP2 ADE	77	-3.146	-16.042	20.694	1.00	0.00
ATOM	772	O5' ADE	77	-1.496	-16.530	18.866	1.00	0.00
ATOM	773	C5' ADE	77	-0.750	-17.390	18.032	1.00	0.00
ATOM	774	C4' ADE	77	0.031	-16.612	16.973	1.00	0.00
ATOM	775	O4' ADE	77	-0.806	-15.844	16.130	1.00	0.00
ATOM	776	C1' ADE	77	-0.003	-14.830	15.566	1.00	0.00
ATOM	777	N9 ADE	77	-0.845	-13.782	14.952	1.00	0.00
ATOM	778	C8 ADE	77	-1.986	-13.209	15.455	1.00	0.00
ATOM	779	N7 ADE	77	-2.588	-12.398	14.632	1.00	0.00
ATOM	780	C5 ADE	77	-1.763	-12.403	13.516	1.00	0.00
ATOM	781	C6 ADE	77	-1.826	-11.731	12.282	1.00	0.00
ATOM	782	N6 ADE	77	-2.842	-10.928	11.964	1.00	0.00
ATOM	783	N1 ADE	77	-0.809	-11.874	11.413	1.00	0.00
ATOM	784	C2 ADE	77	0.203	-12.674	11.740	1.00	0.00
ATOM	785	N3 ADE	77	0.356	-13.406	12.841	1.00	0.00
ATOM	786	C4 ADE	77	-0.674	-13.213	13.710	1.00	0.00
ATOM	787	C3' ADE	77	1.103	-15.647	17.505	1.00	0.00
ATOM	788	C2' ADE	77	0.745	-14.335	16.800	1.00	0.00
ATOM	789	O3' ADE	77	2.348	-16.179	17.088	1.00	0.00
ATOM	790	P GUA	78	3.768	-15.737	17.704	1.00	0.00
ATOM	791	OP1 GUA	78	3.593	-15.483	19.150	1.00	0.00
ATOM	792	OP2 GUA	78	4.762	-16.738	17.245	1.00	0.00
ATOM	793	O5' GUA	78	4.054	-14.335	16.959	1.00	0.00
ATOM	794	C5' GUA	78	4.660	-14.307	15.682	1.00	0.00
ATOM	795	C4' GUA	78	4.527	-12.955	14.982	1.00	0.00
ATOM	796	O4' GUA	78	3.186	-12.608	14.700	1.00	0.00

689				690				
ATOM	797	C1'	GUA	78	3.227	-11.254	14.313	1.00 0.00
ATOM	798	N9	GUA	78	1.879	-10.648	14.244	1.00 0.00
ATOM	799	C8	GUA	78	0.894	-10.650	15.198	1.00 0.00
ATOM	800	N7	GUA	78	-0.175	-9.983	14.859	1.00 0.00
ATOM	801	C5	GUA	78	0.117	-9.500	13.588	1.00 0.00
ATOM	802	C6	GUA	78	-0.666	-8.702	12.696	1.00 0.00
ATOM	803	O6	GUA	78	-1.793	-8.245	12.875	1.00 0.00
ATOM	804	N1	GUA	78	-0.021	-8.456	11.488	1.00 0.00
ATOM	805	C2	GUA	78	1.242	-8.915	11.176	1.00 0.00
ATOM	806	N2	GUA	78	1.766	-8.541	10.007	1.00 0.00
ATOM	807	N3	GUA	78	1.985	-9.654	12.012	1.00 0.00
ATOM	808	C4	GUA	78	1.368	-9.915	13.197	1.00 0.00
ATOM	809	C3'	GUA	78	5.092	-11.754	15.751	1.00 0.00
ATOM	810	C2'	GUA	78	4.053	-10.662	15.450	1.00 0.00
ATOM	811	O3'	GUA	78	6.395	-11.496	15.256	1.00 0.00
ATOM	812	P	GUA	79	7.272	-10.219	15.705	1.00 0.00
ATOM	813	OP1	GUA	79	8.703	-10.563	15.550	1.00 0.00
ATOM	814	OP2	GUA	79	6.765	-9.721	17.002	1.00 0.00
ATOM	815	O5'	GUA	79	6.882	-9.155	14.560	1.00 0.00
ATOM	816	C5'	GUA	79	7.180	-9.414	13.201	1.00 0.00
ATOM	817	C4'	GUA	79	6.584	-8.329	12.300	1.00 0.00
ATOM	818	O4'	GUA	79	5.177	-8.265	12.464	1.00 0.00
ATOM	819	C1'	GUA	79	4.775	-6.920	12.330	1.00 0.00
ATOM	820	N9	GUA	79	3.440	-6.706	12.929	1.00 0.00
ATOM	821	C8	GUA	79	3.001	-7.070	14.177	1.00 0.00
ATOM	822	N7	GUA	79	1.765	-6.745	14.425	1.00 0.00
ATOM	823	C5	GUA	79	1.351	-6.102	13.264	1.00 0.00
ATOM	824	C6	GUA	79	0.096	-5.507	12.943	1.00 0.00
ATOM	825	O6	GUA	79	-0.910	-5.440	13.644	1.00 0.00
ATOM	826	N1	GUA	79	0.078	-4.949	11.668	1.00 0.00
ATOM	827	C2	GUA	79	1.150	-4.960	10.801	1.00 0.00
ATOM	828	N2	GUA	79	1.014	-4.329	9.633	1.00 0.00
ATOM	829	N3	GUA	79	2.331	-5.521	11.098	1.00 0.00
ATOM	830	C4	GUA	79	2.369	-6.073	12.341	1.00 0.00
ATOM	831	C3'	GUA	79	7.116	-6.921	12.612	1.00 0.00
ATOM	832	C2'	GUA	79	5.863	-6.212	13.128	1.00 0.00
ATOM	833	O3'	GUA	79	7.622	-6.354	11.415	1.00 0.00
ATOM	834	P	GUA	80	8.353	-4.915	11.377	1.00 0.00
ATOM	835	OP1	GUA	80	8.781	-4.559	12.748	1.00 0.00
ATOM	836	OP2	GUA	80	9.343	-4.928	10.277	1.00 0.00
ATOM	837	O5'	GUA	80	7.152	-3.929	10.958	1.00 0.00
ATOM	838	C5'	GUA	80	6.639	-3.928	9.640	1.00 0.00
ATOM	839	C4'	GUA	80	5.506	-2.909	9.511	1.00 0.00
ATOM	840	O4'	GUA	80	4.428	-3.271	10.356	1.00 0.00
ATOM	841	C1'	GUA	80	3.846	-2.094	10.864	1.00 0.00
ATOM	842	N9	GUA	80	3.012	-2.374	12.052	1.00 0.00
ATOM	843	C8	GUA	80	3.360	-3.021	13.210	1.00 0.00
ATOM	844	N7	GUA	80	2.394	-3.112	14.080	1.00 0.00
ATOM	845	C5	GUA	80	1.322	-2.480	13.458	1.00 0.00
ATOM	846	C6	GUA	80	-0.015	-2.269	13.910	1.00 0.00

691					692				
ATOM	847	O6	GUA	80	-0.519	-2.617	14.975	1.00	0.00
ATOM	848	N1	GUA	80	-0.786	-1.574	12.985	1.00	0.00
ATOM	849	C2	GUA	80	-0.334	-1.151	11.752	1.00	0.00
ATOM	850	N2	GUA	80	-1.189	-0.488	10.969	1.00	0.00
ATOM	851	N3	GUA	80	0.916	-1.359	11.317	1.00	0.00
ATOM	852	C4	GUA	80	1.693	-2.024	12.215	1.00	0.00
ATOM	853	C3'	GUA	80	5.917	-1.491	9.945	1.00	0.00
ATOM	854	C2'	GUA	80	5.083	-1.271	11.205	1.00	0.00
ATOM	855	O3'	GUA	80	5.563	-0.540	8.960	1.00	0.00
ATOM	856	O5'	CYT	81	-9.761	1.905	14.181	1.00	0.00
ATOM	857	C5'	CYT	81	-9.186	2.843	13.295	1.00	0.00
ATOM	858	C4'	CYT	81	-7.951	2.254	12.606	1.00	0.00
ATOM	859	O4'	CYT	81	-7.000	1.803	13.549	1.00	0.00
ATOM	860	C1'	CYT	81	-6.123	0.940	12.859	1.00	0.00
ATOM	861	N1	CYT	81	-5.338	0.085	13.782	1.00	0.00
ATOM	862	C6	CYT	81	-5.954	-0.518	14.851	1.00	0.00
ATOM	863	C5	CYT	81	-5.302	-1.406	15.635	1.00	0.00
ATOM	864	C4	CYT	81	-3.931	-1.677	15.308	1.00	0.00
ATOM	865	N4	CYT	81	-3.223	-2.541	16.038	1.00	0.00
ATOM	866	N3	CYT	81	-3.342	-1.104	14.250	1.00	0.00
ATOM	867	C2	CYT	81	-4.020	-0.228	13.457	1.00	0.00
ATOM	868	O2	CYT	81	-3.469	0.252	12.470	1.00	0.00
ATOM	869	C3'	CYT	81	-8.254	1.020	11.742	1.00	0.00
ATOM	870	C2'	CYT	81	-7.090	0.080	12.059	1.00	0.00
ATOM	871	O3'	CYT	81	-8.314	1.397	10.376	1.00	0.00
ATOM	872	P	CYT	82	-8.634	0.337	9.199	1.00	0.00
ATOM	873	OP1	CYT	82	-9.277	1.074	8.088	1.00	0.00
ATOM	874	OP2	CYT	82	-9.316	-0.830	9.800	1.00	0.00
ATOM	875	O5'	CYT	82	-7.167	-0.138	8.716	1.00	0.00
ATOM	876	C5'	CYT	82	-6.293	0.741	8.029	1.00	0.00
ATOM	877	C4'	CYT	82	-5.031	0.004	7.562	1.00	0.00
ATOM	878	O4'	CYT	82	-4.288	-0.468	8.670	1.00	0.00
ATOM	879	C1'	CYT	82	-3.800	-1.771	8.420	1.00	0.00
ATOM	880	N1	CYT	82	-3.727	-2.474	9.721	1.00	0.00
ATOM	881	C6	CYT	82	-4.820	-2.440	10.540	1.00	0.00
ATOM	882	C5	CYT	82	-4.824	-3.019	11.753	1.00	0.00
ATOM	883	C4	CYT	82	-3.615	-3.682	12.153	1.00	0.00
ATOM	884	N4	CYT	82	-3.550	-4.296	13.335	1.00	0.00
ATOM	885	N3	CYT	82	-2.549	-3.736	11.340	1.00	0.00
ATOM	886	C2	CYT	82	-2.571	-3.147	10.109	1.00	0.00
ATOM	887	O2	CYT	82	-1.589	-3.224	9.374	1.00	0.00
ATOM	888	C3'	CYT	82	-5.350	-1.224	6.697	1.00	0.00
ATOM	889	C2'	CYT	82	-4.889	-2.400	7.553	1.00	0.00
ATOM	890	O3'	CYT	82	-4.652	-1.100	5.468	1.00	0.00
ATOM	891	P	CYT	83	-4.866	-2.119	4.237	1.00	0.00
ATOM	892	OP1	CYT	83	-4.606	-1.384	2.980	1.00	0.00
ATOM	893	OP2	CYT	83	-6.153	-2.823	4.427	1.00	0.00
ATOM	894	O5'	CYT	83	-3.677	-3.179	4.462	1.00	0.00
ATOM	895	C5'	CYT	83	-2.350	-2.912	4.041	1.00	0.00
ATOM	896	C4'	CYT	83	-1.428	-4.048	4.498	1.00	0.00

(348)

特開2003-135087

693

694

ATOM	897	O4'	CYT	83	-1.494	-4.169	5.904	1.00	0.00
ATOM	898	C1'	CYT	83	-1.057	-5.456	6.282	1.00	0.00
ATOM	899	N1	CYT	83	-1.747	-5.883	7.524	1.00	0.00
ATOM	900	C6	CYT	83	-3.079	-5.614	7.669	1.00	0.00
ATOM	901	C5	CYT	83	-3.745	-5.908	8.806	1.00	0.00
ATOM	902	C4	CYT	83	-2.991	-6.556	9.845	1.00	0.00
ATOM	903	N4	CYT	83	-3.576	-6.879	10.998	1.00	0.00
ATOM	904	N3	CYT	83	-1.707	-6.904	9.662	1.00	0.00
ATOM	905	C2	CYT	83	-1.058	-6.595	8.503	1.00	0.00
ATOM	906	O2	CYT	83	0.104	-6.959	8.329	1.00	0.00
ATOM	907	C3'	CYT	83	-1.870	-5.419	3.975	1.00	0.00
ATOM	908	C2'	CYT	83	-1.501	-6.349	5.129	1.00	0.00
ATOM	909	O3'	CYT	83	-1.212	-5.760	2.765	1.00	0.00
ATOM	910	P	THY	84	-1.538	-7.131	1.965	1.00	0.00
ATOM	911	OP1	THY	84	-2.974	-7.447	2.130	1.00	0.00
ATOM	912	OP2	THY	84	-0.964	-7.024	0.605	1.00	0.00
ATOM	913	O5'	THY	84	-0.696	-8.243	2.772	1.00	0.00
ATOM	914	C5'	THY	84	0.714	-8.310	2.685	1.00	0.00
ATOM	915	C4'	THY	84	1.274	-9.277	3.732	1.00	0.00
ATOM	916	O4'	THY	84	1.051	-8.816	5.054	1.00	0.00
ATOM	917	C1'	THY	84	1.085	-9.912	5.956	1.00	0.00
ATOM	918	N1	THY	84	-0.138	-9.967	6.808	1.00	0.00
ATOM	919	C6	THY	84	-1.359	-9.536	6.340	1.00	0.00
ATOM	920	C5	THY	84	-2.466	-9.581	7.122	1.00	0.00
ATOM	921	C7	THY	84	-3.773	-9.121	6.502	1.00	0.00
ATOM	922	C4	THY	84	-2.408	-10.061	8.486	1.00	0.00
ATOM	923	O4	THY	84	-3.344	-10.065	9.280	1.00	0.00
ATOM	924	N3	THY	84	-1.167	-10.548	8.860	1.00	0.00
ATOM	925	C2	THY	84	-0.030	-10.561	8.066	1.00	0.00
ATOM	926	O2	THY	84	1.002	-11.091	8.471	1.00	0.00
ATOM	927	C3'	THY	84	0.595	-10.643	3.747	1.00	0.00
ATOM	928	C2'	THY	84	1.181	-11.149	5.061	1.00	0.00
ATOM	929	O3'	THY	84	0.937	-11.433	2.624	1.00	0.00
ATOM	930	P	ADE	85	0.186	-12.828	2.326	1.00	0.00
ATOM	931	OP1	ADE	85	-1.249	-12.652	2.649	1.00	0.00
ATOM	932	OP2	ADE	85	0.522	-13.258	0.949	1.00	0.00
ATOM	933	O5'	ADE	85	0.817	-13.860	3.384	1.00	0.00
ATOM	934	C5'	ADE	85	2.209	-14.074	3.486	1.00	0.00
ATOM	935	C4'	ADE	85	2.527	-14.814	4.793	1.00	0.00
ATOM	936	O4'	ADE	85	1.814	-14.244	5.887	1.00	0.00
ATOM	937	C1'	ADE	85	0.963	-15.199	6.503	1.00	0.00
ATOM	938	N9	ADE	85	-0.326	-14.586	6.912	1.00	0.00
ATOM	939	C8	ADE	85	-1.209	-13.867	6.141	1.00	0.00
ATOM	940	N7	ADE	85	-2.258	-13.428	6.776	1.00	0.00
ATOM	941	C5	ADE	85	-2.076	-13.913	8.061	1.00	0.00
ATOM	942	C6	ADE	85	-2.859	-13.821	9.226	1.00	0.00
ATOM	943	N6	ADE	85	-4.023	-13.171	9.243	1.00	0.00
ATOM	944	N1	ADE	85	-2.423	-14.419	10.350	1.00	0.00
ATOM	945	C2	ADE	85	-1.266	-15.072	10.310	1.00	0.00
ATOM	946	N3	ADE	85	-0.444	-15.250	9.279	1.00	0.00

695					696				
ATOM	947	C4	ADE	85	-0.911	-14.631	8.160	1.00	0.00
ATOM	948	C3'	ADE	85	2.122	-16.288	4.745	1.00	0.00
ATOM	949	C2'	ADE	85	0.752	-16.246	5.415	1.00	0.00
ATOM	950	O3'	ADE	85	3.082	-17.037	5.472	1.00	0.00
ATOM	951	P	ADE	86	3.037	-18.644	5.539	1.00	0.00
ATOM	952	OP1	ADE	86	2.087	-19.127	4.516	1.00	0.00
ATOM	953	OP2	ADE	86	4.433	-19.151	5.515	1.00	0.00
ATOM	954	O5'	ADE	86	2.392	-18.937	6.983	1.00	0.00
ATOM	955	C5'	ADE	86	3.019	-18.513	8.175	1.00	0.00
ATOM	956	C4'	ADE	86	2.219	-18.963	9.405	1.00	0.00
ATOM	957	O4'	ADE	86	0.928	-18.378	9.421	1.00	0.00
ATOM	958	C1'	ADE	86	-0.082	-19.372	9.387	1.00	0.00
ATOM	959	N9	ADE	86	-1.221	-18.839	8.596	1.00	0.00
ATOM	960	C8	ADE	86	-1.294	-18.635	7.241	1.00	0.00
ATOM	961	N7	ADE	86	-2.293	-17.885	6.858	1.00	0.00
ATOM	962	C5	ADE	86	-2.972	-17.616	8.039	1.00	0.00
ATOM	963	C6	ADE	86	-4.131	-16.868	8.341	1.00	0.00
ATOM	964	N6	ADE	86	-4.825	-16.171	7.438	1.00	0.00
ATOM	965	N1	ADE	86	-4.536	-16.805	9.621	1.00	0.00
ATOM	966	C2	ADE	86	-3.840	-17.440	10.551	1.00	0.00
ATOM	967	N3	ADE	86	-2.723	-18.146	10.407	1.00	0.00
ATOM	968	C4	ADE	86	-2.335	-18.207	9.102	1.00	0.00
ATOM	969	C3'	ADE	86	1.997	-20.477	9.463	1.00	0.00
ATOM	970	C2'	ADE	86	0.614	-20.612	8.818	1.00	0.00
ATOM	971	O3'	ADE	86	1.996	-20.849	10.828	1.00	0.00
ATOM	972	P	CYT	87	2.312	-22.348	11.336	1.00	0.00
ATOM	973	OP1	CYT	87	3.486	-22.274	12.240	1.00	0.00
ATOM	974	OP2	CYT	87	2.344	-23.270	10.173	1.00	0.00
ATOM	975	O5'	CYT	87	0.987	-22.648	12.209	1.00	0.00
ATOM	976	C5'	CYT	87	0.806	-22.036	13.475	1.00	0.00
ATOM	977	C4'	CYT	87	-0.673	-21.767	13.781	1.00	0.00
ATOM	978	O4'	CYT	87	-1.307	-21.094	12.701	1.00	0.00
ATOM	979	C1'	CYT	87	-2.674	-21.450	12.704	1.00	0.00
ATOM	980	N1	CYT	87	-3.340	-21.159	11.404	1.00	0.00
ATOM	981	C6	CYT	87	-2.774	-21.581	10.225	1.00	0.00
ATOM	982	C5	CYT	87	-3.368	-21.356	9.030	1.00	0.00
ATOM	983	C4	CYT	87	-4.614	-20.650	9.044	1.00	0.00
ATOM	984	N4	CYT	87	-5.222	-20.316	7.906	1.00	0.00
ATOM	985	N3	CYT	87	-5.171	-20.255	10.195	1.00	0.00
ATOM	986	C2	CYT	87	-4.566	-20.488	11.393	1.00	0.00
ATOM	987	O2	CYT	87	-5.102	-20.084	12.422	1.00	0.00
ATOM	988	C3'	CYT	87	-1.524	-23.016	14.065	1.00	0.00
ATOM	989	C2'	CYT	87	-2.547	-22.949	12.934	1.00	0.00
ATOM	990	O3'	CYT	87	-2.096	-22.885	15.360	1.00	0.00
ATOM	991	P	CYT	88	-3.152	-23.949	15.960	1.00	0.00
ATOM	992	OP1	CYT	88	-3.006	-25.225	15.228	1.00	0.00
ATOM	993	OP2	CYT	88	-3.045	-23.929	17.441	1.00	0.00
ATOM	994	O5'	CYT	88	-4.565	-23.288	15.561	1.00	0.00
ATOM	995	C5'	CYT	88	-4.975	-22.045	16.107	1.00	0.00
ATOM	996	C4'	CYT	88	-6.440	-21.755	15.778	1.00	0.00

(350)

特開2003-135087

697				698				
ATOM	997	O4' CYT	88	-6.576	-21.562	14.391	1.00	0.00
ATOM	998	C1' CYT	88	-7.737	-22.198	13.908	1.00	0.00
ATOM	999	N1 CYT	88	-7.436	-22.633	12.527	1.00	0.00
ATOM	1000	C6 CYT	88	-6.275	-23.316	12.279	1.00	0.00
ATOM	1001	C5 CYT	88	-5.864	-23.595	11.028	1.00	0.00
ATOM	1002	C4 CYT	88	-6.708	-23.140	9.957	1.00	0.00
ATOM	1003	N4 CYT	88	-6.345	-23.303	8.685	1.00	0.00
ATOM	1004	N3 CYT	88	-7.866	-22.512	10.208	1.00	0.00
ATOM	1005	C2 CYT	88	-8.268	-22.256	11.481	1.00	0.00
ATOM	1006	O2 CYT	88	-9.348	-21.707	11.683	1.00	0.00
ATOM	1007	C3' CYT	88	-7.387	-22.902	16.158	1.00	0.00
ATOM	1008	C2' CYT	88	-7.901	-23.408	14.818	1.00	0.00
ATOM	1009	O3' CYT	88	-8.399	-22.378	17.004	1.00	0.00
ATOM	1010	P CYT	89	-9.609	-23.273	17.586	1.00	0.00
ATOM	1011	OP1 CYT	89	-9.206	-24.696	17.531	1.00	0.00
ATOM	1012	OP2 CYT	89	-10.042	-22.681	18.870	1.00	0.00
ATOM	1013	O5' CYT	89	-10.772	-23.035	16.494	1.00	0.00
ATOM	1014	C5' CYT	89	-11.408	-21.777	16.352	1.00	0.00
ATOM	1015	C4' CYT	89	-12.372	-21.803	15.161	1.00	0.00
ATOM	1016	O4' CYT	89	-11.662	-22.160	13.994	1.00	0.00
ATOM	1017	C1' CYT	89	-12.518	-22.850	13.110	1.00	0.00
ATOM	1018	N1 CYT	89	-11.682	-23.713	12.241	1.00	0.00
ATOM	1019	C6 CYT	89	-10.710	-24.496	12.809	1.00	0.00
ATOM	1020	C5 CYT	89	-9.805	-25.165	12.066	1.00	0.00
ATOM	1021	C4 CYT	89	-9.913	-25.026	10.641	1.00	0.00
ATOM	1022	N4 CYT	89	-9.036	-25.627	9.837	1.00	0.00
ATOM	1023	N3 CYT	89	-10.889	-24.295	10.085	1.00	0.00
ATOM	1024	C2 CYT	89	-11.801	-23.636	10.855	1.00	0.00
ATOM	1025	O2 CYT	89	-12.712	-23.010	10.321	1.00	0.00
ATOM	1026	C3' CYT	89	-13.497	-22.839	15.312	1.00	0.00
ATOM	1027	C2' CYT	89	-13.375	-23.693	14.050	1.00	0.00
ATOM	1028	O3' CYT	89	-14.743	-22.167	15.424	1.00	0.00
ATOM	1029	P THY	90	-16.145	-22.947	15.640	1.00	0.00
ATOM	1030	OP1 THY	90	-17.112	-22.004	16.244	1.00	0.00
ATOM	1031	OP2 THY	90	-15.867	-24.240	16.302	1.00	0.00
ATOM	1032	O5' THY	90	-16.622	-23.249	14.130	1.00	0.00
ATOM	1033	C5' THY	90	-16.995	-22.202	13.255	1.00	0.00
ATOM	1034	C4' THY	90	-17.138	-22.729	11.824	1.00	0.00
ATOM	1035	O4' THY	90	-15.925	-23.315	11.395	1.00	0.00
ATOM	1036	C1' THY	90	-16.222	-24.279	10.411	1.00	0.00
ATOM	1037	N1 THY	90	-15.060	-25.192	10.247	1.00	0.00
ATOM	1038	C6 THY	90	-14.535	-25.830	11.345	1.00	0.00
ATOM	1039	C5 THY	90	-13.447	-26.629	11.242	1.00	0.00
ATOM	1040	C7 THY	90	-12.986	-27.306	12.519	1.00	0.00
ATOM	1041	C4 THY	90	-12.776	-26.830	9.977	1.00	0.00
ATOM	1042	O4 THY	90	-11.785	-27.533	9.808	1.00	0.00
ATOM	1043	N3 THY	90	-13.342	-26.136	8.919	1.00	0.00
ATOM	1044	C2 THY	90	-14.482	-25.348	8.985	1.00	0.00
ATOM	1045	O2 THY	90	-14.944	-24.848	7.963	1.00	0.00
ATOM	1046	C3' THY	90	-18.209	-23.822	11.665	1.00	0.00

(351)

特開2003-135087

699

700

ATOM	1047	C2'	THY	90	-17.432	-24.980	11.027	1.00	0.00
ATOM	1048	O3'	THY	90	-19.250	-23.315	10.845	1.00	0.00
ATOM	1049	P	ADE	91	-20.596	-24.149	10.526	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.640	-23.191	10.098	1.00	0.00
ATOM	1051	OP2	ADE	91	-20.861	-25.076	11.649	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.159	-25.018	9.246	1.00	0.00
ATOM	1053	C5'	ADE	91	-19.948	-24.410	7.988	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.307	-25.402	7.015	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.034	-25.822	7.456	1.00	0.00
ATOM	1056	C1'	ADE	91	-17.717	-26.985	6.729	1.00	0.00
ATOM	1057	N9	ADE	91	-16.614	-27.711	7.384	1.00	0.00
ATOM	1058	C8	ADE	91	-16.478	-28.003	8.714	1.00	0.00
ATOM	1059	N7	ADE	91	-15.375	-28.630	9.015	1.00	0.00
ATOM	1060	C5	ADE	91	-14.745	-28.785	7.782	1.00	0.00
ATOM	1061	C6	ADE	91	-13.526	-29.370	7.387	1.00	0.00
ATOM	1062	N6	ADE	91	-12.664	-29.905	8.256	1.00	0.00
ATOM	1063	N1	ADE	91	-13.220	-29.401	6.076	1.00	0.00
ATOM	1064	C2	ADE	91	-14.068	-28.866	5.202	1.00	0.00
ATOM	1065	N3	ADE	91	-15.224	-28.259	5.446	1.00	0.00
ATOM	1066	C4	ADE	91	-15.508	-28.251	6.775	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.101	-26.704	6.829	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.010	-27.781	6.835	1.00	0.00
ATOM	1069	O3'	ADE	91	-20.830	-26.599	5.618	1.00	0.00
ATOM	1070	P	ADE	92	-21.712	-27.805	5.006	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.726	-27.219	4.103	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.130	-28.700	6.107	1.00	0.00
ATOM	1073	O5'	ADE	92	-20.629	-28.583	4.102	1.00	0.00
ATOM	1074	C5'	ADE	92	-19.984	-27.938	3.020	1.00	0.00
ATOM	1075	C4'	ADE	92	-18.926	-28.856	2.403	1.00	0.00
ATOM	1076	O4'	ADE	92	-17.930	-29.178	3.361	1.00	0.00
ATOM	1077	C1'	ADE	92	-17.536	-30.521	3.179	1.00	0.00
ATOM	1078	N9	ADE	92	-16.897	-31.036	4.412	1.00	0.00
ATOM	1079	C8	ADE	92	-17.399	-31.023	5.690	1.00	0.00
ATOM	1080	N7	ADE	92	-16.592	-31.501	6.595	1.00	0.00
ATOM	1081	C5	ADE	92	-15.470	-31.864	5.863	1.00	0.00
ATOM	1082	C6	ADE	92	-14.239	-32.442	6.230	1.00	0.00
ATOM	1083	N6	ADE	92	-13.950	-32.744	7.497	1.00	0.00
ATOM	1084	N1	ADE	92	-13.329	-32.692	5.271	1.00	0.00
ATOM	1085	C2	ADE	92	-13.631	-32.385	4.011	1.00	0.00
ATOM	1086	N3	ADE	92	-14.749	-31.842	3.536	1.00	0.00
ATOM	1087	C4	ADE	92	-15.645	-31.594	4.529	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.512	-30.194	1.925	1.00	0.00
ATOM	1089	C2'	ADE	92	-18.888	-31.181	2.915	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.112	-30.407	0.584	1.00	0.00
ATOM	1091	P	CYT	93	-19.637	-31.655	-0.294	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.702	-32.358	0.454	1.00	0.00
ATOM	1093	OP2	CYT	93	-19.890	-31.186	-1.674	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.339	-32.600	-0.312	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.192	-32.255	-1.067	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.083	-33.271	-0.790	1.00	0.00

(352)

特開2003-135087

701

702

ATOM	1097	04'	CYT	93	-15.823	-33.291	0.594	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.334	-34.561	0.957	1.00	0.00
ATOM	1099	N1	CYT	93	-15.604	-34.784	2.399	1.00	0.00
ATOM	1100	C6	CYT	93	-16.808	-34.408	2.939	1.00	0.00
ATOM	1101	C5	CYT	93	-17.067	-34.540	4.258	1.00	0.00
ATOM	1102	C4	CYT	93	-16.019	-35.087	5.070	1.00	0.00
ATOM	1103	N4	CYT	93	-16.148	-35.154	6.396	1.00	0.00
ATOM	1104	N3	CYT	93	-14.859	-35.485	4.532	1.00	0.00
ATOM	1105	C2	CYT	93	-14.621	-35.357	3.197	1.00	0.00
ATOM	1106	O2	CYT	93	-13.552	-35.740	2.727	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.488	-34.708	-1.145	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.160	-35.523	0.103	1.00	0.00
ATOM	1109	O3'	CYT	93	-15.747	-35.176	-2.252	1.00	0.00

END

HEADER 000000

REMARK	0.00538	1.67254	0.02538	0.01829	2.53799	1.71937
	0.00000					

REMARK	2.64321	0.33222	0.51718	1.12315	0.67067
--------	---------	---------	---------	---------	---------

REMARK	0.01025	0.00571	0.00746	0.01792	0.00796
--------	---------	---------	---------	---------	---------

REMARK	123	119	4	0	0	0
	0					

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.03431	0.15300	0.02809	0.05196	0.14399	0.15300
--------	---------	---------	---------	---------	---------	---------

REMARK	2.21283	0.18008
--------	---------	---------

REMARK	1	0	1	0	0	0
	0					

ATOM	1	N	GLU	1	-4.168	-25.179	28.615	1.00	0.00
ATOM	2	CA	GLU	1	-5.025	-24.053	28.202	1.00	0.00
ATOM	3	CB	GLU	1	-6.506	-24.303	28.547	1.00	0.00
ATOM	4	CG	GLU	1	-6.975	-25.738	28.265	1.00	0.00
ATOM	5	CD	GLU	1	-6.561	-26.219	26.880	1.00	0.00
ATOM	6	OE1	GLU	1	-7.351	-26.011	25.937	1.00	0.00
ATOM	7	OE2	GLU	1	-5.430	-26.748	26.806	1.00	0.00
ATOM	8	C	GLU	1	-4.544	-22.717	28.774	1.00	0.00
ATOM	9	O	GLU	1	-4.158	-21.827	28.020	1.00	0.00
ATOM	10	N	LYS	2	-4.574	-22.569	30.104	1.00	0.00
ATOM	11	CA	LYS	2	-4.178	-21.346	30.795	1.00	0.00
ATOM	12	CB	LYS	2	-4.820	-21.326	32.192	1.00	0.00
ATOM	13	CG	LYS	2	-6.353	-21.304	32.096	1.00	0.00
ATOM	14	CD	LYS	2	-6.981	-21.240	33.495	1.00	0.00
ATOM	15	CE	LYS	2	-8.514	-21.320	33.446	1.00	0.00
ATOM	16	NZ	LYS	2	-9.117	-20.172	32.743	1.00	0.00
ATOM	17	C	LYS	2	-2.651	-21.207	30.847	1.00	0.00
ATOM	18	O	LYS	2	-2.049	-21.341	31.910	1.00	0.00

(353)

特開2003-135087

703

704

ATOM	19	N	HIS	3	-2.047	-20.936	29.684	1.00	0.00
ATOM	20	CA	HIS	3	-0.617	-20.758	29.446	1.00	0.00
ATOM	21	CB	HIS	3	0.160	-22.016	29.888	1.00	0.00
ATOM	22	CG	HIS	3	-0.361	-23.319	29.325	1.00	0.00
ATOM	23	ND1	HIS	3	-0.057	-24.543	29.903	1.00	0.00
ATOM	24	CE1	HIS	3	-0.672	-25.493	29.179	1.00	0.00
ATOM	25	NE2	HIS	3	-1.368	-24.994	28.156	1.00	0.00
ATOM	26	CD2	HIS	3	-1.166	-23.621	28.251	1.00	0.00
ATOM	27	C	HIS	3	-0.458	-20.424	27.953	1.00	0.00
ATOM	28	O	HIS	3	-1.311	-19.737	27.394	1.00	0.00
ATOM	29	N	ARG	4	0.594	-20.923	27.294	1.00	0.00
ATOM	30	CA	ARG	4	0.847	-20.753	25.870	1.00	0.00
ATOM	31	CB	ARG	4	1.654	-19.478	25.569	1.00	0.00
ATOM	32	CG	ARG	4	3.105	-19.506	26.073	1.00	0.00
ATOM	33	CD	ARG	4	3.818	-18.166	25.824	1.00	0.00
ATOM	34	NE	ARG	4	3.904	-17.831	24.390	1.00	0.00
ATOM	35	CZ	ARG	4	4.409	-16.686	23.890	1.00	0.00
ATOM	36	NH1	ARG	4	4.926	-15.759	24.708	1.00	0.00
ATOM	37	NH2	ARG	4	4.398	-16.468	22.567	1.00	0.00
ATOM	38	C	ARG	4	1.510	-22.042	25.377	1.00	0.00
ATOM	39	O	ARG	4	2.044	-22.802	26.186	1.00	0.00
ATOM	40	N	ALA	5	1.462	-22.305	24.066	1.00	0.00
ATOM	41	CA	ALA	5	2.022	-23.522	23.487	1.00	0.00
ATOM	42	CB	ALA	5	1.000	-24.658	23.619	1.00	0.00
ATOM	43	C	ALA	5	2.424	-23.341	22.023	1.00	0.00
ATOM	44	O	ALA	5	3.469	-23.852	21.622	1.00	0.00
ATOM	45	N	ARG	6	1.580	-22.637	21.255	1.00	0.00
ATOM	46	CA	ARG	6	1.684	-22.329	19.830	1.00	0.00
ATOM	47	CB	ARG	6	1.043	-20.956	19.569	1.00	0.00
ATOM	48	CG	ARG	6	0.587	-20.798	18.111	1.00	0.00
ATOM	49	CD	ARG	6	-0.783	-21.444	17.891	1.00	0.00
ATOM	50	NE	ARG	6	-1.809	-20.741	18.668	1.00	0.00
ATOM	51	CZ	ARG	6	-2.874	-21.263	19.292	1.00	0.00
ATOM	52	NH1	ARG	6	-3.218	-22.548	19.147	1.00	0.00
ATOM	53	NH2	ARG	6	-3.582	-20.452	20.085	1.00	0.00
ATOM	54	C	ARG	6	3.108	-22.340	19.265	1.00	0.00
ATOM	55	O	ARG	6	3.961	-21.578	19.718	1.00	0.00
ATOM	56	N	LYS	7	3.353	-23.188	18.258	1.00	0.00
ATOM	57	CA	LYS	7	4.643	-23.301	17.590	1.00	0.00
ATOM	58	CB	LYS	7	4.947	-24.777	17.266	1.00	0.00
ATOM	59	CG	LYS	7	4.754	-25.737	18.448	1.00	0.00
ATOM	60	CD	LYS	7	5.595	-25.333	19.664	1.00	0.00
ATOM	61	CE	LYS	7	5.333	-26.275	20.845	1.00	0.00
ATOM	62	NZ	LYS	7	5.629	-25.608	22.126	1.00	0.00
ATOM	63	C	LYS	7	4.644	-22.430	16.331	1.00	0.00
ATOM	64	O	LYS	7	5.013	-22.905	15.260	1.00	0.00
ATOM	65	N	ARG	8	4.234	-21.161	16.472	1.00	0.00
ATOM	66	CA	ARG	8	4.175	-20.187	15.387	1.00	0.00
ATOM	67	CB	ARG	8	3.685	-18.840	15.947	1.00	0.00
ATOM	68	CG	ARG	8	3.626	-17.700	14.912	1.00	0.00

705				706				
ATOM	69	CD	ARG	8	2.575	-17.884	13.808	1.00 0.00
ATOM	70	NE	ARG	8	1.211	-17.952	14.358	1.00 0.00
ATOM	71	CZ	ARG	8	0.078	-17.664	13.695	1.00 0.00
ATOM	72	NH1	ARG	8	-1.092	-17.677	14.343	1.00 0.00
ATOM	73	NH2	ARG	8	0.101	-17.358	12.394	1.00 0.00
ATOM	74	C	ARG	8	5.565	-20.063	14.760	1.00 0.00
ATOM	75	O	ARG	8	6.469	-19.519	15.392	1.00 0.00
ATOM	76	N	GLN	9	5.741	-20.577	13.537	1.00 0.00
ATOM	77	CA	GLN	9	7.023	-20.560	12.845	1.00 0.00
ATOM	78	CB	GLN	9	7.756	-21.881	13.131	1.00 0.00
ATOM	79	CG	GLN	9	7.070	-23.080	12.461	1.00 0.00
ATOM	80	CD	GLN	9	7.485	-24.421	13.049	1.00 0.00
ATOM	81	OE1	GLN	9	8.195	-25.196	12.412	1.00 0.00
ATOM	82	NE2	GLN	9	7.020	-24.717	14.260	1.00 0.00
ATOM	83	C	GLN	9	6.852	-20.304	11.346	1.00 0.00
ATOM	84	O	GLN	9	5.986	-20.889	10.696	1.00 0.00
ATOM	85	N	ALA	10	7.699	-19.429	10.794	1.00 0.00
ATOM	86	CA	ALA	10	7.695	-19.092	9.378	1.00 0.00
ATOM	87	CB	ALA	10	8.591	-17.872	9.147	1.00 0.00
ATOM	88	C	ALA	10	8.192	-20.287	8.567	1.00 0.00
ATOM	89	O	ALA	10	8.872	-21.160	9.108	1.00 0.00
ATOM	90	N	TRP	11	7.858	-20.336	7.275	1.00 0.00
ATOM	91	CA	TRP	11	8.293	-21.419	6.402	1.00 0.00
ATOM	92	CB	TRP	11	7.279	-21.675	5.292	1.00 0.00
ATOM	93	CG	TRP	11	5.990	-22.304	5.734	1.00 0.00
ATOM	94	CD1	TRP	11	5.105	-21.775	6.608	1.00 0.00
ATOM	95	NE1	TRP	11	4.033	-22.625	6.774	1.00 0.00
ATOM	96	CE2	TRP	11	4.179	-23.760	6.005	1.00 0.00
ATOM	97	CZ2	TRP	11	3.381	-24.898	5.825	1.00 0.00
ATOM	98	CH2	TRP	11	3.819	-25.907	4.957	1.00 0.00
ATOM	99	CZ3	TRP	11	5.041	-25.771	4.279	1.00 0.00
ATOM	100	CE3	TRP	11	5.833	-24.623	4.464	1.00 0.00
ATOM	101	CD2	TRP	11	5.425	-23.587	5.333	1.00 0.00
ATOM	102	C	TRP	11	9.689	-21.142	5.852	1.00 0.00
ATOM	103	O	TRP	11	10.037	-20.001	5.549	1.00 0.00
ATOM	104	N	LEU	12	10.479	-22.212	5.743	1.00 0.00
ATOM	105	CA	LEU	12	11.849	-22.205	5.254	1.00 0.00
ATOM	106	CB	LEU	12	12.734	-23.035	6.193	1.00 0.00
ATOM	107	CG	LEU	12	12.781	-22.488	7.632	1.00 0.00
ATOM	108	CD1	LEU	12	11.738	-23.154	8.541	1.00 0.00
ATOM	109	CD2	LEU	12	14.175	-22.726	8.225	1.00 0.00
ATOM	110	C	LEU	12	11.866	-22.737	3.823	1.00 0.00
ATOM	111	O	LEU	12	10.911	-23.399	3.408	1.00 0.00
ATOM	112	N	TRP	13	12.942	-22.447	3.069	1.00 0.00
ATOM	113	CA	TRP	13	13.047	-22.901	1.693	1.00 0.00
ATOM	114	CB	TRP	13	14.370	-22.570	1.003	1.00 0.00
ATOM	115	CG	TRP	13	15.606	-22.250	1.782	1.00 0.00
ATOM	116	CD1	TRP	13	16.532	-21.419	1.278	1.00 0.00
ATOM	117	NE1	TRP	13	17.575	-21.267	2.161	1.00 0.00
ATOM	118	CE2	TRP	13	17.376	-22.018	3.298	1.00 0.00

(355)

特開2003-135087

707

708

ATOM	119	CZ2	TRP	13	18.142	-22.198	4.460	1.00	0.00
ATOM	120	CH2	TRP	13	17.667	-23.049	5.468	1.00	0.00
ATOM	121	CZ3	TRP	13	16.437	-23.705	5.300	1.00	0.00
ATOM	122	CE3	TRP	13	15.678	-23.512	4.131	1.00	0.00
ATOM	123	CD2	TRP	13	16.122	-22.668	3.091	1.00	0.00
ATOM	124	C	TRP	13	12.729	-24.376	1.556	1.00	0.00
ATOM	125	O	TRP	13	11.727	-24.687	0.949	1.00	0.00
ATOM	126	N	GLU	14	13.541	-25.279	2.100	1.00	0.00
ATOM	127	CA	GLU	14	13.321	-26.717	2.018	1.00	0.00
ATOM	128	CB	GLU	14	14.174	-27.465	3.053	1.00	0.00
ATOM	129	CG	GLU	14	15.670	-27.120	2.988	1.00	0.00
ATOM	130	CD	GLU	14	16.218	-27.182	1.570	1.00	0.00
ATOM	131	OE1	GLU	14	16.439	-28.310	1.076	1.00	0.00
ATOM	132	OE2	GLU	14	16.368	-26.101	0.956	1.00	0.00
ATOM	133	C	GLU	14	11.842	-27.101	2.126	1.00	0.00
ATOM	134	O	GLU	14	11.366	-27.877	1.302	1.00	0.00
ATOM	135	N	GLU	15	11.104	-26.552	3.099	1.00	0.00
ATOM	136	CA	GLU	15	9.686	-26.843	3.224	1.00	0.00
ATOM	137	CB	GLU	15	9.106	-26.243	4.512	1.00	0.00
ATOM	138	CG	GLU	15	9.759	-26.809	5.780	1.00	0.00
ATOM	139	CD	GLU	15	9.074	-26.248	7.021	1.00	0.00
ATOM	140	OE1	GLU	15	9.252	-25.035	7.268	1.00	0.00
ATOM	141	OE2	GLU	15	8.355	-27.018	7.695	1.00	0.00
ATOM	142	C	GLU	15	8.928	-26.358	1.981	1.00	0.00
ATOM	143	O	GLU	15	8.272	-27.159	1.319	1.00	0.00
ATOM	144	N	ASP	16	9.017	-25.063	1.654	1.00	0.00
ATOM	145	CA	ASP	16	8.346	-24.476	0.492	1.00	0.00
ATOM	146	CB	ASP	16	8.646	-22.974	0.412	1.00	0.00
ATOM	147	CG	ASP	16	8.014	-22.184	1.549	1.00	0.00
ATOM	148	OD1	ASP	16	6.932	-22.598	2.013	1.00	0.00
ATOM	149	OD2	ASP	16	8.582	-21.129	1.903	1.00	0.00
ATOM	150	C	ASP	16	8.768	-25.160	-0.811	1.00	0.00
ATOM	151	O	ASP	16	7.940	-25.685	-1.541	1.00	0.00
ATOM	152	N	LYS	17	10.066	-25.146	-1.096	1.00	0.00
ATOM	153	CA	LYS	17	10.753	-25.725	-2.232	1.00	0.00
ATOM	154	CB	LYS	17	12.269	-25.656	-1.916	1.00	0.00
ATOM	155	CG	LYS	17	13.125	-26.124	-3.102	1.00	0.00
ATOM	156	CD	LYS	17	14.618	-26.153	-2.742	1.00	0.00
ATOM	157	CE	LYS	17	14.986	-27.422	-1.960	1.00	0.00
ATOM	158	NZ	LYS	17	16.353	-27.353	-1.416	1.00	0.00
ATOM	159	C	LYS	17	10.249	-27.156	-2.477	1.00	0.00
ATOM	160	O	LYS	17	9.771	-27.481	-3.568	1.00	0.00
ATOM	161	N	ASN	18	10.352	-28.013	-1.455	1.00	0.00
ATOM	162	CA	ASN	18	9.930	-29.404	-1.538	1.00	0.00
ATOM	163	CB	ASN	18	10.453	-30.164	-0.312	1.00	0.00
ATOM	164	CG	ASN	18	10.549	-31.672	-0.502	1.00	0.00
ATOM	165	OD1	ASN	18	10.193	-32.210	-1.548	1.00	0.00
ATOM	166	ND2	ASN	18	11.076	-32.357	0.516	1.00	0.00
ATOM	167	C	ASN	18	8.411	-29.516	-1.725	1.00	0.00
ATOM	168	O	ASN	18	7.960	-30.305	-2.551	1.00	0.00

709

710

ATOM	169	N	LEU	19	7.621	-28.720	-0.991	1.00	0.00
ATOM	170	CA	LEU	19	6.163	-28.693	-1.095	1.00	0.00
ATOM	171	CB	LEU	19	5.597	-27.630	-0.138	1.00	0.00
ATOM	172	CG	LEU	19	4.099	-27.339	-0.319	1.00	0.00
ATOM	173	CD1	LEU	19	3.278	-28.608	-0.086	1.00	0.00
ATOM	174	CD2	LEU	19	3.685	-26.226	0.651	1.00	0.00
ATOM	175	C	LEU	19	5.742	-28.407	-2.538	1.00	0.00
ATOM	176	O	LEU	19	4.953	-29.151	-3.115	1.00	0.00
ATOM	177	N	ARG	20	6.279	-27.327	-3.114	1.00	0.00
ATOM	178	CA	ARG	20	6.021	-26.885	-4.475	1.00	0.00
ATOM	179	CB	ARG	20	6.868	-25.639	-4.780	1.00	0.00
ATOM	180	CG	ARG	20	6.365	-24.428	-3.974	1.00	0.00
ATOM	181	CD	ARG	20	7.425	-23.335	-3.798	1.00	0.00
ATOM	182	NE	ARG	20	7.741	-22.659	-5.064	1.00	0.00
ATOM	183	CZ	ARG	20	8.449	-21.520	-5.159	1.00	0.00
ATOM	184	NH1	ARG	20	8.642	-20.954	-6.358	1.00	0.00
ATOM	185	NH2	ARG	20	8.960	-20.944	-4.062	1.00	0.00
ATOM	186	C	ARG	20	6.306	-28.041	-5.431	1.00	0.00
ATOM	187	O	ARG	20	5.481	-28.341	-6.296	1.00	0.00
ATOM	188	N	SER	21	7.457	-28.709	-5.263	1.00	0.00
ATOM	189	CA	SER	21	7.785	-29.852	-6.104	1.00	0.00
ATOM	190	CB	SER	21	9.218	-30.346	-5.844	1.00	0.00
ATOM	191	OG	SER	21	9.296	-31.295	-4.800	1.00	0.00
ATOM	192	C	SER	21	6.714	-30.941	-5.940	1.00	0.00
ATOM	193	O	SER	21	6.243	-31.493	-6.931	1.00	0.00
ATOM	194	N	GLY	22	6.316	-31.235	-4.693	1.00	0.00
ATOM	195	CA	GLY	22	5.298	-32.216	-4.349	1.00	0.00
ATOM	196	C	GLY	22	3.994	-31.943	-5.092	1.00	0.00
ATOM	197	O	GLY	22	3.423	-32.855	-5.688	1.00	0.00
ATOM	198	N	VAL	23	3.532	-30.688	-5.069	1.00	0.00
ATOM	199	CA	VAL	23	2.313	-30.301	-5.758	1.00	0.00
ATOM	200	CB	VAL	23	1.895	-28.864	-5.414	1.00	0.00
ATOM	201	CG1	VAL	23	0.650	-28.489	-6.228	1.00	0.00
ATOM	202	CG2	VAL	23	1.540	-28.749	-3.928	1.00	0.00
ATOM	203	C	VAL	23	2.478	-30.508	-7.263	1.00	0.00
ATOM	204	O	VAL	23	1.573	-31.031	-7.900	1.00	0.00
ATOM	205	N	ARG	24	3.614	-30.125	-7.854	1.00	0.00
ATOM	206	CA	ARG	24	3.798	-30.339	-9.286	1.00	0.00
ATOM	207	CB	ARG	24	5.037	-29.597	-9.801	1.00	0.00
ATOM	208	CG	ARG	24	4.780	-28.084	-9.854	1.00	0.00
ATOM	209	CD	ARG	24	5.882	-27.364	-10.639	1.00	0.00
ATOM	210	NE	ARG	24	5.521	-25.958	-10.876	1.00	0.00
ATOM	211	CZ	ARG	24	6.112	-25.145	-11.768	1.00	0.00
ATOM	212	NH1	ARG	24	5.629	-23.911	-11.964	1.00	0.00
ATOM	213	NH2	ARG	24	7.179	-25.559	-12.464	1.00	0.00
ATOM	214	C	ARG	24	3.842	-31.835	-9.634	1.00	0.00
ATOM	215	O	ARG	24	3.409	-32.224	-10.716	1.00	0.00
ATOM	216	N	LYS	25	4.362	-32.672	-8.729	1.00	0.00
ATOM	217	CA	LYS	25	4.476	-34.111	-8.931	1.00	0.00
ATOM	218	CB	LYS	25	5.466	-34.694	-7.912	1.00	0.00

(357)

特開2003-135087

711

712

ATOM	219	CG	LYS	25	6.915	-34.293	-8.214	1.00	0.00
ATOM	220	CD	LYS	25	7.765	-34.433	-6.946	1.00	0.00
ATOM	221	CE	LYS	25	9.213	-34.002	-7.201	1.00	0.00
ATOM	222	NZ	LYS	25	9.947	-33.814	-5.936	1.00	0.00
ATOM	223	C	LYS	25	3.136	-34.846	-8.823	1.00	0.00
ATOM	224	O	LYS	25	2.799	-35.621	-9.716	1.00	0.00
ATOM	225	N	TYR	26	2.399	-34.649	-7.721	1.00	0.00
ATOM	226	CA	TYR	26	1.152	-35.364	-7.442	1.00	0.00
ATOM	227	CB	TYR	26	1.230	-35.951	-6.023	1.00	0.00
ATOM	228	CG	TYR	26	2.595	-36.490	-5.622	1.00	0.00
ATOM	229	CD1	TYR	26	3.226	-37.496	-6.376	1.00	0.00
ATOM	230	CE1	TYR	26	4.493	-37.975	-5.993	1.00	0.00
ATOM	231	CZ	TYR	26	5.132	-37.450	-4.854	1.00	0.00
ATOM	232	OH	TYR	26	6.360	-37.908	-4.475	1.00	0.00
ATOM	233	CE2	TYR	26	4.503	-36.446	-4.101	1.00	0.00
ATOM	234	CD2	TYR	26	3.240	-35.970	-4.486	1.00	0.00
ATOM	235	C	TYR	26	-0.132	-34.539	-7.598	1.00	0.00
ATOM	236	O	TYR	26	-1.215	-35.121	-7.622	1.00	0.00
ATOM	237	N	GLY	27	-0.031	-33.208	-7.690	1.00	0.00
ATOM	238	CA	GLY	27	-1.166	-32.298	-7.815	1.00	0.00
ATOM	239	C	GLY	27	-1.611	-31.807	-6.437	1.00	0.00
ATOM	240	O	GLY	27	-1.307	-32.445	-5.427	1.00	0.00
ATOM	241	N	GLU	28	-2.343	-30.684	-6.373	1.00	0.00
ATOM	242	CA	GLU	28	-2.841	-30.180	-5.096	1.00	0.00
ATOM	243	CB	GLU	28	-3.222	-28.688	-5.153	1.00	0.00
ATOM	244	CG	GLU	28	-4.272	-28.258	-6.188	1.00	0.00
ATOM	245	CD	GLU	28	-4.384	-26.729	-6.239	1.00	0.00
ATOM	246	OE1	GLU	28	-3.430	-26.110	-6.760	1.00	0.00
ATOM	247	OE2	GLU	28	-5.388	-26.178	-5.734	1.00	0.00
ATOM	248	C	GLU	28	-3.931	-31.134	-4.593	1.00	0.00
ATOM	249	O	GLU	28	-4.471	-31.927	-5.366	1.00	0.00
ATOM	250	N	GLY	29	-4.223	-31.103	-3.292	1.00	0.00
ATOM	251	CA	GLY	29	-5.189	-32.015	-2.695	1.00	0.00
ATOM	252	C	GLY	29	-4.579	-33.403	-2.525	1.00	0.00
ATOM	253	O	GLY	29	-5.240	-34.417	-2.738	1.00	0.00
ATOM	254	N	ASN	30	-3.304	-33.428	-2.127	1.00	0.00
ATOM	255	CA	ASN	30	-2.513	-34.623	-1.872	1.00	0.00
ATOM	256	CB	ASN	30	-1.753	-35.037	-3.146	1.00	0.00
ATOM	257	CG	ASN	30	-2.659	-35.521	-4.275	1.00	0.00
ATOM	258	OD1	ASN	30	-2.926	-36.717	-4.386	1.00	0.00
ATOM	259	ND2	ASN	30	-3.099	-34.619	-5.148	1.00	0.00
ATOM	260	C	ASN	30	-1.531	-34.286	-0.747	1.00	0.00
ATOM	261	O	ASN	30	-0.394	-34.750	-0.758	1.00	0.00
ATOM	262	N	TRP	31	-1.952	-33.460	0.218	1.00	0.00
ATOM	263	CA	TRP	31	-1.109	-33.020	1.324	1.00	0.00
ATOM	264	CB	TRP	31	-1.768	-31.874	2.099	1.00	0.00
ATOM	265	CG	TRP	31	-2.506	-30.932	1.206	1.00	0.00
ATOM	266	CD1	TRP	31	-3.849	-30.817	1.107	1.00	0.00
ATOM	267	NE1	TRP	31	-4.165	-29.868	0.158	1.00	0.00
ATOM	268	CE2	TRP	31	-3.030	-29.322	-0.398	1.00	0.00

713				714			
ATOM	269	CZ2 TRP	31	-2.827	-28.345	-1.380	1.00 0.00
ATOM	270	CH2 TRP	31	-1.514	-28.010	-1.736	1.00 0.00
ATOM	271	CZ3 TRP	31	-0.429	-28.638	-1.111	1.00 0.00
ATOM	272	CE3 TRP	31	-0.643	-29.617	-0.127	1.00 0.00
ATOM	273	CD2 TRP	31	-1.951	-29.981	0.256	1.00 0.00
ATOM	274	C TRP	31	-0.676	-34.192	2.199	1.00 0.00
ATOM	275	O TRP	31	0.422	-34.164	2.748	1.00 0.00
ATOM	276	N SER	32	-1.514	-35.229	2.299	1.00 0.00
ATOM	277	CA SER	32	-1.216	-36.438	3.048	1.00 0.00
ATOM	278	CB SER	32	-2.437	-37.367	3.005	1.00 0.00
ATOM	279	OG SER	32	-2.894	-37.541	1.674	1.00 0.00
ATOM	280	C SER	32	0.016	-37.098	2.424	1.00 0.00
ATOM	281	O SER	32	1.041	-37.285	3.074	1.00 0.00
ATOM	282	N LYS	33	-0.089	-37.434	1.137	1.00 0.00
ATOM	283	CA LYS	33	0.982	-38.045	0.365	1.00 0.00
ATOM	284	CB LYS	33	0.519	-38.218	-1.087	1.00 0.00
ATOM	285	CG LYS	33	-0.578	-39.288	-1.199	1.00 0.00
ATOM	286	CD LYS	33	-1.428	-39.119	-2.464	1.00 0.00
ATOM	287	CE LYS	33	-0.590	-39.113	-3.749	1.00 0.00
ATOM	288	NZ LYS	33	-1.444	-38.993	-4.946	1.00 0.00
ATOM	289	C LYS	33	2.235	-37.172	0.452	1.00 0.00
ATOM	290	O LYS	33	3.295	-37.649	0.854	1.00 0.00
ATOM	291	N ILE	34	2.106	-35.892	0.087	1.00 0.00
ATOM	292	CA ILE	34	3.193	-34.925	0.107	1.00 0.00
ATOM	293	CB ILE	34	2.688	-33.531	-0.323	1.00 0.00
ATOM	294	CG2 ILE	34	3.734	-32.442	-0.055	1.00 0.00
ATOM	295	CG1 ILE	34	2.353	-33.537	-1.825	1.00 0.00
ATOM	296	CD1 ILE	34	1.628	-32.276	-2.306	1.00 0.00
ATOM	297	C ILE	34	3.905	-34.920	1.462	1.00 0.00
ATOM	298	O ILE	34	5.125	-35.018	1.480	1.00 0.00
ATOM	299	N LEU	35	3.188	-34.811	2.588	1.00 0.00
ATOM	300	CA LEU	35	3.830	-34.790	3.901	1.00 0.00
ATOM	301	CB LEU	35	2.929	-34.170	4.984	1.00 0.00
ATOM	302	CG LEU	35	1.797	-35.028	5.575	1.00 0.00
ATOM	303	CD1 LEU	35	2.276	-35.947	6.708	1.00 0.00
ATOM	304	CD2 LEU	35	0.710	-34.104	6.141	1.00 0.00
ATOM	305	C LEU	35	4.455	-36.134	4.273	1.00 0.00
ATOM	306	O LEU	35	5.457	-36.159	4.985	1.00 0.00
ATOM	307	N LEU	36	3.892	-37.253	3.798	1.00 0.00
ATOM	308	CA LEU	36	4.446	-38.569	4.095	1.00 0.00
ATOM	309	CB LEU	36	3.457	-39.677	3.703	1.00 0.00
ATOM	310	CG LEU	36	2.258	-39.768	4.664	1.00 0.00
ATOM	311	CD1 LEU	36	1.120	-40.548	3.995	1.00 0.00
ATOM	312	CD2 LEU	36	2.634	-40.466	5.978	1.00 0.00
ATOM	313	C LEU	36	5.787	-38.729	3.377	1.00 0.00
ATOM	314	O LEU	36	6.770	-39.142	3.991	1.00 0.00
ATOM	315	N HIS	37	5.829	-38.395	2.082	1.00 0.00
ATOM	316	CA HIS	37	7.037	-38.482	1.274	1.00 0.00
ATOM	317	CB HIS	37	6.693	-38.264	-0.209	1.00 0.00
ATOM	318	CG HIS	37	5.681	-39.227	-0.773	1.00 0.00

(359)

特開2003-135087

715				716				
ATOM	319	ND1	HIS	37	5.831	-40.604	-0.708	1.00 0.00
ATOM	320	CE1	HIS	37	4.756	-41.150	-1.302	1.00 0.00
ATOM	321	NE2	HIS	37	3.896	-40.238	-1.761	1.00 0.00
ATOM	322	CD2	HIS	37	4.488	-39.025	-1.423	1.00 0.00
ATOM	323	C	HIS	37	8.058	-37.434	1.722	1.00 0.00
ATOM	324	O	HIS	37	9.208	-37.754	2.013	1.00 0.00
ATOM	325	N	TYR	38	7.618	-36.175	1.745	1.00 0.00
ATOM	326	CA	TYR	38	8.390	-34.991	2.080	1.00 0.00
ATOM	327	CB	TYR	38	8.177	-33.964	0.960	1.00 0.00
ATOM	328	CG	TYR	38	8.481	-34.507	-0.430	1.00 0.00
ATOM	329	CD1	TYR	38	7.601	-34.248	-1.499	1.00 0.00
ATOM	330	CE1	TYR	38	7.877	-34.757	-2.781	1.00 0.00
ATOM	331	CZ	TYR	38	9.030	-35.528	-2.998	1.00 0.00
ATOM	332	OH	TYR	38	9.298	-36.024	-4.240	1.00 0.00
ATOM	333	CE2	TYR	38	9.911	-35.788	-1.937	1.00 0.00
ATOM	334	CD2	TYR	38	9.638	-35.279	-0.658	1.00 0.00
ATOM	335	C	TYR	38	7.986	-34.469	3.455	1.00 0.00
ATOM	336	O	TYR	38	7.141	-33.589	3.584	1.00 0.00
ATOM	337	N	LYS	39	8.615	-35.034	4.485	1.00 0.00
ATOM	338	CA	LYS	39	8.385	-34.702	5.880	1.00 0.00
ATOM	339	CB	LYS	39	9.081	-35.762	6.741	1.00 0.00
ATOM	340	CG	LYS	39	8.447	-37.140	6.491	1.00 0.00
ATOM	341	CD	LYS	39	9.122	-38.230	7.328	1.00 0.00
ATOM	342	CE	LYS	39	8.515	-39.593	6.968	1.00 0.00
ATOM	343	NZ	LYS	39	9.119	-40.689	7.749	1.00 0.00
ATOM	344	C	LYS	39	8.878	-33.285	6.191	1.00 0.00
ATOM	345	O	LYS	39	10.066	-32.997	6.054	1.00 0.00
ATOM	346	N	PHE	40	7.955	-32.411	6.608	1.00 0.00
ATOM	347	CA	PHE	40	8.213	-31.015	6.947	1.00 0.00
ATOM	348	CB	PHE	40	6.973	-30.196	6.580	1.00 0.00
ATOM	349	CG	PHE	40	6.574	-30.377	5.132	1.00 0.00
ATOM	350	CD1	PHE	40	5.429	-31.112	4.781	1.00 0.00
ATOM	351	CE1	PHE	40	5.090	-31.272	3.426	1.00 0.00
ATOM	352	CZ	PHE	40	5.892	-30.697	2.422	1.00 0.00
ATOM	353	CE2	PHE	40	7.037	-29.966	2.776	1.00 0.00
ATOM	354	CD2	PHE	40	7.374	-29.807	4.128	1.00 0.00
ATOM	355	C	PHE	40	8.589	-30.865	8.424	1.00 0.00
ATOM	356	O	PHE	40	8.710	-31.866	9.130	1.00 0.00
ATOM	357	N	ASN	41	8.785	-29.626	8.899	1.00 0.00
ATOM	358	CA	ASN	41	9.178	-29.390	10.284	1.00 0.00
ATOM	359	CB	ASN	41	9.772	-27.981	10.442	1.00 0.00
ATOM	360	CG	ASN	41	10.591	-27.834	11.727	1.00 0.00
ATOM	361	OD1	ASN	41	11.270	-28.764	12.152	1.00 0.00
ATOM	362	ND2	ASN	41	10.556	-26.657	12.351	1.00 0.00
ATOM	363	C	ASN	41	8.020	-29.652	11.251	1.00 0.00
ATOM	364	O	ASN	41	8.109	-30.548	12.085	1.00 0.00
ATOM	365	N	ASN	42	6.933	-28.875	11.142	1.00 0.00
ATOM	366	CA	ASN	42	5.745	-29.000	11.990	1.00 0.00
ATOM	367	CB	ASN	42	5.880	-28.106	13.237	1.00 0.00
ATOM	368	CG	ASN	42	7.069	-28.459	14.125	1.00 0.00

(360)

特開2003-135087

717

718

ATOM	369	OD1	ASN	42	6.985	-29.362	14.952	1.00	0.00
ATOM	370	ND2	ASN	42	8.174	-27.728	13.982	1.00	0.00
ATOM	371	C	ASN	42	4.513	-28.582	11.184	1.00	0.00
ATOM	372	O	ASN	42	3.735	-27.743	11.636	1.00	0.00
ATOM	373	N	ARG	43	4.349	-29.137	9.977	1.00	0.00
ATOM	374	CA	ARG	43	3.265	-28.786	9.065	1.00	0.00
ATOM	375	CB	ARG	43	3.857	-28.323	7.726	1.00	0.00
ATOM	376	CG	ARG	43	5.106	-27.441	7.858	1.00	0.00
ATOM	377	CD	ARG	43	4.918	-26.141	8.649	1.00	0.00
ATOM	378	NE	ARG	43	6.174	-25.387	8.607	1.00	0.00
ATOM	379	CZ	ARG	43	6.382	-24.136	9.044	1.00	0.00
ATOM	380	NH1	ARG	43	5.405	-23.391	9.583	1.00	0.00
ATOM	381	NH2	ARG	43	7.618	-23.641	8.938	1.00	0.00
ATOM	382	C	ARG	43	2.300	-29.953	8.838	1.00	0.00
ATOM	383	O	ARG	43	2.721	-31.052	8.482	1.00	0.00
ATOM	384	N	THR	44	1.004	-29.690	9.030	1.00	0.00
ATOM	385	CA	THR	44	-0.108	-30.612	8.850	1.00	0.00
ATOM	386	CB	THR	44	-1.157	-30.300	9.928	1.00	0.00
ATOM	387	CG2	THR	44	-0.583	-30.468	11.340	1.00	0.00
ATOM	388	OG1	THR	44	-1.620	-28.968	9.760	1.00	0.00
ATOM	389	C	THR	44	-0.735	-30.374	7.473	1.00	0.00
ATOM	390	O	THR	44	-0.374	-29.414	6.795	1.00	0.00
ATOM	391	N	SER	45	-1.702	-31.212	7.068	1.00	0.00
ATOM	392	CA	SER	45	-2.417	-31.038	5.805	1.00	0.00
ATOM	393	CB	SER	45	-3.502	-32.106	5.652	1.00	0.00
ATOM	394	OG	SER	45	-2.909	-33.379	5.512	1.00	0.00
ATOM	395	C	SER	45	-3.034	-29.638	5.742	1.00	0.00
ATOM	396	O	SER	45	-3.053	-29.009	4.686	1.00	0.00
ATOM	397	N	VAL	46	-3.521	-29.148	6.890	1.00	0.00
ATOM	398	CA	VAL	46	-4.100	-27.823	7.015	1.00	0.00
ATOM	399	CB	VAL	46	-4.724	-27.644	8.410	1.00	0.00
ATOM	400	CG1	VAL	46	-5.292	-26.231	8.567	1.00	0.00
ATOM	401	CG2	VAL	46	-5.857	-28.651	8.652	1.00	0.00
ATOM	402	C	VAL	46	-3.003	-26.793	6.736	1.00	0.00
ATOM	403	O	VAL	46	-3.143	-25.973	5.835	1.00	0.00
ATOM	404	N	MET	47	-1.900	-26.832	7.493	1.00	0.00
ATOM	405	CA	MET	47	-0.798	-25.893	7.298	1.00	0.00
ATOM	406	CB	MET	47	0.368	-26.259	8.230	1.00	0.00
ATOM	407	CG	MET	47	0.810	-25.071	9.090	1.00	0.00
ATOM	408	SD	MET	47	-0.409	-24.528	10.323	1.00	0.00
ATOM	409	CE	MET	47	-0.298	-25.883	11.517	1.00	0.00
ATOM	410	C	MET	47	-0.353	-25.851	5.829	1.00	0.00
ATOM	411	O	MET	47	-0.150	-24.778	5.265	1.00	0.00
ATOM	412	N	LEU	48	-0.213	-27.029	5.215	1.00	0.00
ATOM	413	CA	LEU	48	0.197	-27.206	3.831	1.00	0.00
ATOM	414	CB	LEU	48	0.336	-28.706	3.534	1.00	0.00
ATOM	415	CG	LEU	48	1.579	-29.271	4.233	1.00	0.00
ATOM	416	CD1	LEU	48	1.470	-30.779	4.450	1.00	0.00
ATOM	417	CD2	LEU	48	2.819	-29.006	3.382	1.00	0.00
ATOM	418	C	LEU	48	-0.768	-26.530	2.861	1.00	0.00

(361)

特開2003-135087

719

720

ATOM	419	O	LEU	48	-0.341	-25.687	2.069	1.00	0.00
ATOM	420	N	LYS	49	-2.061	-26.883	2.913	1.00	0.00
ATOM	421	CA	LYS	49	-3.033	-26.272	2.016	1.00	0.00
ATOM	422	CB	LYS	49	-4.421	-26.924	2.098	1.00	0.00
ATOM	423	CG	LYS	49	-5.202	-26.719	3.407	1.00	0.00
ATOM	424	CD	LYS	49	-6.588	-26.101	3.190	1.00	0.00
ATOM	425	CE	LYS	49	-6.591	-24.568	3.230	1.00	0.00
ATOM	426	NZ	LYS	49	-6.829	-24.055	4.596	1.00	0.00
ATOM	427	C	LYS	49	-3.080	-24.758	2.207	1.00	0.00
ATOM	428	O	LYS	49	-3.255	-24.035	1.233	1.00	0.00
ATOM	429	N	ASP	50	-2.920	-24.271	3.444	1.00	0.00
ATOM	430	CA	ASP	50	-2.934	-22.845	3.724	1.00	0.00
ATOM	431	CB	ASP	50	-3.001	-22.583	5.229	1.00	0.00
ATOM	432	CG	ASP	50	-4.434	-22.733	5.697	1.00	0.00
ATOM	433	OD1	ASP	50	-4.750	-23.759	6.336	1.00	0.00
ATOM	434	OD2	ASP	50	-5.238	-21.846	5.337	1.00	0.00
ATOM	435	C	ASP	50	-1.735	-22.159	3.085	1.00	0.00
ATOM	436	O	ASP	50	-1.904	-21.130	2.437	1.00	0.00
ATOM	437	N	ARG	51	-0.533	-22.722	3.247	1.00	0.00
ATOM	438	CA	ARG	51	0.669	-22.151	2.655	1.00	0.00
ATOM	439	CB	ARG	51	1.893	-23.009	3.003	1.00	0.00
ATOM	440	CG	ARG	51	3.179	-22.191	3.172	1.00	0.00
ATOM	441	CD	ARG	51	3.517	-21.240	2.022	1.00	0.00
ATOM	442	NE	ARG	51	4.903	-20.765	2.157	1.00	0.00
ATOM	443	CZ	ARG	51	5.328	-19.513	2.393	1.00	0.00
ATOM	444	NH1	ARG	51	6.640	-19.251	2.396	1.00	0.00
ATOM	445	NH2	ARG	51	4.464	-18.519	2.628	1.00	0.00
ATOM	446	C	ARG	51	0.473	-22.038	1.141	1.00	0.00
ATOM	447	O	ARG	51	0.692	-20.975	0.561	1.00	0.00
ATOM	448	N	TRP	52	0.037	-23.133	0.504	1.00	0.00
ATOM	449	CA	TRP	52	-0.216	-23.170	-0.927	1.00	0.00
ATOM	450	CB	TRP	52	-0.625	-24.586	-1.327	1.00	0.00
ATOM	451	CG	TRP	52	-0.797	-24.789	-2.798	1.00	0.00
ATOM	452	CD1	TRP	52	-1.968	-25.028	-3.427	1.00	0.00
ATOM	453	NE1	TRP	52	-1.753	-25.171	-4.780	1.00	0.00
ATOM	454	CE2	TRP	52	-0.418	-25.030	-5.091	1.00	0.00
ATOM	455	CZ2	TRP	52	0.293	-25.089	-6.298	1.00	0.00
ATOM	456	CH2	TRP	52	1.685	-24.910	-6.280	1.00	0.00
ATOM	457	CZ3	TRP	52	2.342	-24.666	-5.064	1.00	0.00
ATOM	458	CE3	TRP	52	1.620	-24.603	-3.859	1.00	0.00
ATOM	459	CD2	TRP	52	0.220	-24.784	-3.841	1.00	0.00
ATOM	460	C	TRP	52	-1.288	-22.153	-1.328	1.00	0.00
ATOM	461	O	TRP	52	-1.136	-21.454	-2.331	1.00	0.00
ATOM	462	N	ARG	53	-2.368	-22.068	-0.540	1.00	0.00
ATOM	463	CA	ARG	53	-3.468	-21.145	-0.771	1.00	0.00
ATOM	464	CB	ARG	53	-4.563	-21.325	0.292	1.00	0.00
ATOM	465	CG	ARG	53	-5.761	-20.406	0.028	1.00	0.00
ATOM	466	CD	ARG	53	-6.989	-20.798	0.859	1.00	0.00
ATOM	467	NE	ARG	53	-6.755	-20.697	2.311	1.00	0.00
ATOM	468	CZ	ARG	53	-7.721	-20.531	3.233	1.00	0.00

(362)

特開2003-135087

721				722				
ATOM	469	NH1	ARG	53	-9.001	-20.400	2.870	1.00 0.00
ATOM	470	NH2	ARG	53	-7.413	-20.506	4.533	1.00 0.00
ATOM	471	C	ARG	53	-2.917	-19.724	-0.826	1.00 0.00
ATOM	472	O	ARG	53	-3.182	-19.011	-1.792	1.00 0.00
ATOM	473	N	THR	54	-2.135	-19.333	0.189	1.00 0.00
ATOM	474	CA	THR	54	-1.495	-18.029	0.267	1.00 0.00
ATOM	475	CB	THR	54	-0.603	-17.958	1.517	1.00 0.00
ATOM	476	CG2	THR	54	0.006	-16.567	1.704	1.00 0.00
ATOM	477	OG1	THR	54	-1.378	-18.259	2.658	1.00 0.00
ATOM	478	C	THR	54	-0.699	-17.790	-1.021	1.00 0.00
ATOM	479	O	THR	54	-0.898	-16.783	-1.698	1.00 0.00
ATOM	480	N	MET	55	0.188	-18.733	-1.356	1.00 0.00
ATOM	481	CA	MET	55	1.039	-18.702	-2.535	1.00 0.00
ATOM	482	CB	MET	55	1.752	-20.066	-2.663	1.00 0.00
ATOM	483	CG	MET	55	3.252	-19.917	-2.908	1.00 0.00
ATOM	484	SD	MET	55	3.686	-19.150	-4.482	1.00 0.00
ATOM	485	CE	MET	55	5.474	-19.054	-4.262	1.00 0.00
ATOM	486	C	MET	55	0.269	-18.352	-3.816	1.00 0.00
ATOM	487	O	MET	55	0.649	-17.427	-4.533	1.00 0.00
ATOM	488	N	LYS	56	-0.803	-19.094	-4.119	1.00 0.00
ATOM	489	CA	LYS	56	-1.584	-18.891	-5.335	1.00 0.00
ATOM	490	CB	LYS	56	-2.189	-20.225	-5.810	1.00 0.00
ATOM	491	CG	LYS	56	-3.370	-20.721	-4.963	1.00 0.00
ATOM	492	CD	LYS	56	-3.679	-22.186	-5.303	1.00 0.00
ATOM	493	CE	LYS	56	-4.836	-22.756	-4.464	1.00 0.00
ATOM	494	NZ	LYS	56	-6.053	-23.025	-5.259	1.00 0.00
ATOM	495	C	LYS	56	-2.619	-17.761	-5.260	1.00 0.00
ATOM	496	O	LYS	56	-3.278	-17.520	-6.270	1.00 0.00
ATOM	497	N	LYS	57	-2.772	-17.048	-4.129	1.00 0.00
ATOM	498	CA	LYS	57	-3.713	-15.921	-4.049	1.00 0.00
ATOM	499	CB	LYS	57	-3.553	-15.116	-2.748	1.00 0.00
ATOM	500	CG	LYS	57	-4.123	-15.772	-1.491	1.00 0.00
ATOM	501	CD	LYS	57	-4.044	-14.836	-0.271	1.00 0.00
ATOM	502	CE	LYS	57	-2.647	-14.222	-0.075	1.00 0.00
ATOM	503	NZ	LYS	57	-2.503	-13.529	1.218	1.00 0.00
ATOM	504	C	LYS	57	-3.422	-14.944	-5.190	1.00 0.00
ATOM	505	O	LYS	57	-4.323	-14.531	-5.918	1.00 0.00
ATOM	506	N	LEU	58	-2.140	-14.587	-5.324	1.00 0.00
ATOM	507	CA	LEU	58	-1.644	-13.663	-6.331	1.00 0.00
ATOM	508	CB	LEU	58	-0.385	-12.963	-5.789	1.00 0.00
ATOM	509	CG	LEU	58	-0.647	-12.203	-4.473	1.00 0.00
ATOM	510	CD1	LEU	58	-0.061	-12.951	-3.268	1.00 0.00
ATOM	511	CD2	LEU	58	-0.027	-10.801	-4.527	1.00 0.00
ATOM	512	C	LEU	58	-1.354	-14.374	-7.659	1.00 0.00
ATOM	513	O	LEU	58	-0.655	-13.820	-8.503	1.00 0.00
ATOM	514	N	LYS	59	-1.878	-15.596	-7.851	1.00 0.00
ATOM	515	CA	LYS	59	-1.682	-16.407	-9.047	1.00 0.00
ATOM	516	CB	LYS	59	-2.442	-15.804	-10.243	1.00 0.00
ATOM	517	CG	LYS	59	-3.898	-15.418	-9.942	1.00 0.00
ATOM	518	CD	LYS	59	-4.753	-16.627	-9.535	1.00 0.00

(363)

特開2003-135087

723					724				
ATOM	519	CE	LYS	59	-6.174	-16.215	-9.130	1.00	0.00
ATOM	520	NZ	LYS	59	-6.911	-15.573	-10.235	1.00	0.00
ATOM	521	C	LYS	59	-0.188	-16.572	-9.336	1.00	0.00
ATOM	522	O	LYS	59	0.231	-16.549	-10.491	1.00	0.00
ATOM	523	N	LEU	60	0.619	-16.729	-8.279	1.00	0.00
ATOM	524	CA	LEU	60	2.061	-16.853	-8.410	1.00	0.00
ATOM	525	CB	LEU	60	2.724	-16.613	-7.049	1.00	0.00
ATOM	526	CG	LEU	60	4.256	-16.456	-7.074	1.00	0.00
ATOM	527	CD1	LEU	60	4.761	-15.514	-8.177	1.00	0.00
ATOM	528	CD2	LEU	60	4.716	-15.876	-5.730	1.00	0.00
ATOM	529	C	LEU	60	2.465	-18.157	-9.105	1.00	0.00
ATOM	530	O	LEU	60	3.509	-18.224	-9.751	1.00	0.00
ATOM	531	N	ILE	61	1.628	-19.195	-9.001	1.00	0.00
ATOM	532	CA	ILE	61	1.859	-20.483	-9.636	1.00	0.00
ATOM	533	CB	ILE	61	1.118	-21.588	-8.849	1.00	0.00
ATOM	534	CG2	ILE	61	1.494	-22.990	-9.360	1.00	0.00
ATOM	535	CG1	ILE	61	1.340	-21.502	-7.325	1.00	0.00
ATOM	536	CD1	ILE	61	2.807	-21.583	-6.892	1.00	0.00
ATOM	537	C	ILE	61	1.401	-20.384	-11.100	1.00	0.00
ATOM	538	O	ILE	61	0.468	-21.074	-11.507	1.00	0.00
ATOM	539	N	SER	62	2.042	-19.521	-11.900	1.00	0.00
ATOM	540	CA	SER	62	1.712	-19.324	-13.310	1.00	0.00
ATOM	541	CB	SER	62	0.458	-18.444	-13.467	1.00	0.00
ATOM	542	OG	SER	62	-0.720	-19.144	-13.119	1.00	0.00
ATOM	543	C	SER	62	2.915	-18.763	-14.078	1.00	0.00
ATOM	544	O	SER	62	3.804	-19.522	-14.463	1.00	0.00
ATOM	545	N	SER	63	2.936	-17.447	-14.320	1.00	0.00
ATOM	546	CA	SER	63	3.963	-16.725	-15.063	1.00	0.00
ATOM	547	CB	SER	63	3.672	-16.856	-16.564	1.00	0.00
ATOM	548	OG	SER	63	3.436	-18.206	-16.919	1.00	0.00
ATOM	549	C	SER	63	3.913	-15.264	-14.599	1.00	0.00
ATOM	550	O	SER	63	2.917	-14.880	-13.985	1.00	0.00
ATOM	551	N	ASP	64	4.951	-14.454	-14.861	1.00	0.00
ATOM	552	CA	ASP	64	4.970	-13.058	-14.424	1.00	0.00
ATOM	553	CB	ASP	64	5.135	-12.979	-12.893	1.00	0.00
ATOM	554	CG	ASP	64	5.252	-11.539	-12.400	1.00	0.00
ATOM	555	OD1	ASP	64	4.391	-10.726	-12.799	1.00	0.00
ATOM	556	OD2	ASP	64	6.201	-11.278	-11.629	1.00	0.00
ATOM	557	C	ASP	64	6.035	-12.225	-15.148	1.00	0.00
ATOM	558	O	ASP	64	5.702	-11.514	-16.094	1.00	0.00
ATOM	559	N	SER	65	7.293	-12.297	-14.686	1.00	0.00
ATOM	560	CA	SER	65	8.460	-11.570	-15.183	1.00	0.00
ATOM	561	CB	SER	65	9.707	-12.118	-14.480	1.00	0.00
ATOM	562	OG	SER	65	9.549	-12.041	-13.078	1.00	0.00
ATOM	563	C	SER	65	8.615	-11.681	-16.700	1.00	0.00
ATOM	564	O	SER	65	9.314	-12.570	-17.183	1.00	0.00
ATOM	565	N	GLU	66	7.955	-10.784	-17.445	1.00	0.00
ATOM	566	CA	GLU	66	7.929	-10.777	-18.894	1.00	0.00
ATOM	567	CB	GLU	66	9.289	-10.311	-19.439	1.00	0.00
ATOM	568	CG	GLU	66	9.089	-9.454	-20.690	1.00	0.00

(364)

特開2003-135087

725

726

ATOM	569	CD	GLU	66	8.645	-8.031	-20.357	1.00	0.00
ATOM	570	OE1	GLU	66	9.504	-7.271	-19.857	1.00	0.00
ATOM	571	OE2	GLU	66	7.460	-7.726	-20.609	1.00	0.00
ATOM	572	C	GLU	66	7.465	-12.162	-19.377	1.00	0.00
ATOM	573	O	GLU	66	7.998	-12.701	-20.345	1.00	0.00
ATOM	574	N	ASP	67	6.478	-12.708	-18.647	1.00	0.00
ATOM	575	CA	ASP	67	5.845	-14.011	-18.787	1.00	0.00
ATOM	576	CB	ASP	67	5.413	-14.309	-20.234	1.00	0.00
ATOM	577	CG	ASP	67	4.566	-15.574	-20.359	1.00	0.00
ATOM	578	OD1	ASP	67	4.616	-16.186	-21.449	1.00	0.00
ATOM	579	OD2	ASP	67	3.838	-15.887	-19.393	1.00	0.00
ATOM	580	C	ASP	67	6.739	-15.082	-18.153	1.00	0.00
ATOM	581	OT1	ASP	67	7.588	-15.635	-18.885	1.00	0.00
ATOM	582	OT2	ASP	67	6.734	-15.133	-16.900	1.00	0.00
ATOM	583	O5'	GUA	68	-7.908	-40.032	11.447	1.00	0.00
ATOM	584	C5'	GUA	68	-7.577	-40.886	10.372	1.00	0.00
ATOM	585	C4'	GUA	68	-7.679	-40.132	9.044	1.00	0.00
ATOM	586	O4'	GUA	68	-8.964	-39.567	8.886	1.00	0.00
ATOM	587	C1'	GUA	68	-8.876	-38.534	7.928	1.00	0.00
ATOM	588	N9	GUA	68	-10.035	-37.629	8.072	1.00	0.00
ATOM	589	C8	GUA	68	-10.533	-37.081	9.224	1.00	0.00
ATOM	590	N7	GUA	68	-11.628	-36.393	9.062	1.00	0.00
ATOM	591	C5	GUA	68	-11.866	-36.471	7.693	1.00	0.00
ATOM	592	C6	GUA	68	-12.922	-35.919	6.909	1.00	0.00
ATOM	593	O6	GUA	68	-13.918	-35.313	7.299	1.00	0.00
ATOM	594	N1	GUA	68	-12.736	-36.134	5.548	1.00	0.00
ATOM	595	C2	GUA	68	-11.690	-36.852	5.003	1.00	0.00
ATOM	596	N2	GUA	68	-11.619	-36.950	3.675	1.00	0.00
ATOM	597	N3	GUA	68	-10.731	-37.423	5.742	1.00	0.00
ATOM	598	C4	GUA	68	-10.871	-37.191	7.074	1.00	0.00
ATOM	599	C3'	GUA	68	-6.695	-38.958	8.923	1.00	0.00
ATOM	600	C2'	GUA	68	-7.582	-37.853	8.332	1.00	0.00
ATOM	601	O3'	GUA	68	-5.636	-39.374	8.070	1.00	0.00
ATOM	602	P	THY	69	-4.399	-38.418	7.643	1.00	0.00
ATOM	603	OP1	THY	69	-3.390	-39.254	6.956	1.00	0.00
ATOM	604	OP2	THY	69	-4.009	-37.602	8.814	1.00	0.00
ATOM	605	O5'	THY	69	-5.062	-37.446	6.544	1.00	0.00
ATOM	606	C5'	THY	69	-5.779	-37.977	5.444	1.00	0.00
ATOM	607	C4'	THY	69	-6.685	-36.924	4.794	1.00	0.00
ATOM	608	O4'	THY	69	-7.759	-36.420	5.551	1.00	0.00
ATOM	609	C1'	THY	69	-8.166	-35.209	4.955	1.00	0.00
ATOM	610	N1	THY	69	-9.095	-34.478	5.856	1.00	0.00
ATOM	611	C6	THY	69	-8.857	-34.455	7.208	1.00	0.00
ATOM	612	C5	THY	69	-9.702	-33.816	8.056	1.00	0.00
ATOM	613	C7	THY	69	-9.316	-33.826	9.524	1.00	0.00
ATOM	614	C4	THY	69	-10.904	-33.160	7.579	1.00	0.00
ATOM	615	O4	THY	69	-11.725	-32.567	8.272	1.00	0.00
ATOM	616	N3	THY	69	-11.088	-33.254	6.210	1.00	0.00
ATOM	617	C2	THY	69	-10.232	-33.874	5.314	1.00	0.00
ATOM	618	O2	THY	69	-10.493	-33.877	4.114	1.00	0.00

(365)

特開2003-135087

727

728

ATOM	619	C3'	THY	69	-5.935	-35.680	4.302	1.00	0.00
ATOM	620	C2'	THY	69	-6.809	-34.532	4.821	1.00	0.00
ATOM	621	O3'	THY	69	-5.810	-35.698	2.891	1.00	0.00
ATOM	622	P	THY	70	-4.920	-34.597	2.124	1.00	0.00
ATOM	623	OP1	THY	70	-4.236	-35.252	0.986	1.00	0.00
ATOM	624	OP2	THY	70	-4.092	-33.923	3.144	1.00	0.00
ATOM	625	O5'	THY	70	-5.994	-33.525	1.578	1.00	0.00
ATOM	626	C5'	THY	70	-6.963	-33.856	0.599	1.00	0.00
ATOM	627	C4'	THY	70	-8.088	-32.811	0.594	1.00	0.00
ATOM	628	O4'	THY	70	-8.598	-32.666	1.902	1.00	0.00
ATOM	629	C1'	THY	70	-9.274	-31.433	1.969	1.00	0.00
ATOM	630	N1	THY	70	-9.469	-31.023	3.381	1.00	0.00
ATOM	631	C6	THY	70	-8.443	-31.155	4.284	1.00	0.00
ATOM	632	C5	THY	70	-8.613	-30.828	5.589	1.00	0.00
ATOM	633	C7	THY	70	-7.401	-31.023	6.479	1.00	0.00
ATOM	634	C4	THY	70	-9.881	-30.328	6.086	1.00	0.00
ATOM	635	O4	THY	70	-10.123	-29.990	7.241	1.00	0.00
ATOM	636	N3	THY	70	-10.868	-30.252	5.120	1.00	0.00
ATOM	637	C2	THY	70	-10.710	-30.523	3.771	1.00	0.00
ATOM	638	O2	THY	70	-11.621	-30.292	2.980	1.00	0.00
ATOM	639	C3'	THY	70	-7.658	-31.391	0.191	1.00	0.00
ATOM	640	C2'	THY	70	-8.334	-30.486	1.231	1.00	0.00
ATOM	641	O3'	THY	70	-8.079	-31.102	-1.133	1.00	0.00
ATOM	642	P	ADE	71	-7.650	-29.742	-1.896	1.00	0.00
ATOM	643	OP1	ADE	71	-6.325	-29.324	-1.383	1.00	0.00
ATOM	644	OP2	ADE	71	-7.848	-29.943	-3.346	1.00	0.00
ATOM	645	O5'	ADE	71	-8.709	-28.656	-1.384	1.00	0.00
ATOM	646	C5'	ADE	71	-10.013	-28.541	-1.914	1.00	0.00
ATOM	647	C4'	ADE	71	-10.714	-27.358	-1.235	1.00	0.00
ATOM	648	O4'	ADE	71	-11.071	-27.684	0.108	1.00	0.00
ATOM	649	C1'	ADE	71	-10.730	-26.595	0.941	1.00	0.00
ATOM	650	N9	ADE	71	-10.584	-26.962	2.367	1.00	0.00
ATOM	651	C8	ADE	71	-9.509	-27.569	2.952	1.00	0.00
ATOM	652	N7	ADE	71	-9.530	-27.617	4.250	1.00	0.00
ATOM	653	C5	ADE	71	-10.737	-27.013	4.555	1.00	0.00
ATOM	654	C6	ADE	71	-11.349	-26.719	5.782	1.00	0.00
ATOM	655	N6	ADE	71	-10.761	-27.020	6.941	1.00	0.00
ATOM	656	N1	ADE	71	-12.534	-26.086	5.779	1.00	0.00
ATOM	657	C2	ADE	71	-13.085	-25.767	4.607	1.00	0.00
ATOM	658	N3	ADE	71	-12.597	-25.967	3.383	1.00	0.00
ATOM	659	C4	ADE	71	-11.400	-26.613	3.422	1.00	0.00
ATOM	660	C3'	ADE	71	-9.787	-26.128	-1.141	1.00	0.00
ATOM	661	C2'	ADE	71	-9.378	-26.236	0.327	1.00	0.00
ATOM	662	O3'	ADE	71	-10.542	-24.965	-1.403	1.00	0.00
ATOM	663	P	GUA	72	-9.884	-23.511	-1.634	1.00	0.00
ATOM	664	OP1	GUA	72	-9.802	-23.235	-3.086	1.00	0.00
ATOM	665	OP2	GUA	72	-8.674	-23.377	-0.791	1.00	0.00
ATOM	666	O5'	GUA	72	-11.037	-22.597	-0.985	1.00	0.00
ATOM	667	C5'	GUA	72	-12.381	-22.657	-1.433	1.00	0.00
ATOM	668	C4'	GUA	72	-13.335	-22.256	-0.300	1.00	0.00

729					730				
ATOM	669	O4'	GUA	72	-13.030	-23.015	0.865	1.00	0.00
ATOM	670	C1'	GUA	72	-12.737	-22.157	1.953	1.00	0.00
ATOM	671	N9	GUA	72	-11.685	-22.738	2.822	1.00	0.00
ATOM	672	C8	GUA	72	-10.450	-23.206	2.454	1.00	0.00
ATOM	673	N7	GUA	72	-9.695	-23.592	3.443	1.00	0.00
ATOM	674	C5	GUA	72	-10.496	-23.390	4.556	1.00	0.00
ATOM	675	C6	GUA	72	-10.217	-23.648	5.928	1.00	0.00
ATOM	676	O6	GUA	72	-9.169	-24.087	6.401	1.00	0.00
ATOM	677	N1	GUA	72	-11.296	-23.355	6.754	1.00	0.00
ATOM	678	C2	GUA	72	-12.508	-22.865	6.305	1.00	0.00
ATOM	679	N2	GUA	72	-13.445	-22.588	7.211	1.00	0.00
ATOM	680	N3	GUA	72	-12.760	-22.593	5.016	1.00	0.00
ATOM	681	C4	GUA	72	-11.721	-22.883	4.190	1.00	0.00
ATOM	682	C3'	GUA	72	-13.199	-20.783	0.100	1.00	0.00
ATOM	683	C2'	GUA	72	-12.228	-20.890	1.268	1.00	0.00
ATOM	684	O3'	GUA	72	-14.467	-20.284	0.493	1.00	0.00
ATOM	685	P	GUA	73	-14.697	-18.737	0.904	1.00	0.00
ATOM	686	OP1	GUA	73	-16.028	-18.324	0.408	1.00	0.00
ATOM	687	OP2	GUA	73	-13.496	-17.966	0.510	1.00	0.00
ATOM	688	O5'	GUA	73	-14.745	-18.788	2.514	1.00	0.00
ATOM	689	C5'	GUA	73	-15.865	-19.326	3.194	1.00	0.00
ATOM	690	C4'	GUA	73	-15.684	-19.217	4.711	1.00	0.00
ATOM	691	O4'	GUA	73	-14.505	-19.895	5.107	1.00	0.00
ATOM	692	C1'	GUA	73	-13.838	-19.140	6.093	1.00	0.00
ATOM	693	N9	GUA	73	-12.401	-19.489	6.089	1.00	0.00
ATOM	694	C8	GUA	73	-11.554	-19.554	5.013	1.00	0.00
ATOM	695	N7	GUA	73	-10.359	-19.996	5.285	1.00	0.00
ATOM	696	C5	GUA	73	-10.415	-20.234	6.651	1.00	0.00
ATOM	697	C6	GUA	73	-9.419	-20.766	7.515	1.00	0.00
ATOM	698	O6	GUA	73	-8.276	-21.093	7.209	1.00	0.00
ATOM	699	N1	GUA	73	-9.864	-20.897	8.825	1.00	0.00
ATOM	700	C2	GUA	73	-11.129	-20.555	9.259	1.00	0.00
ATOM	701	N2	GUA	73	-11.399	-20.686	10.559	1.00	0.00
ATOM	702	N3	GUA	73	-12.070	-20.060	8.445	1.00	0.00
ATOM	703	C4	GUA	73	-11.654	-19.924	7.157	1.00	0.00
ATOM	704	C3'	GUA	73	-15.536	-17.766	5.202	1.00	0.00
ATOM	705	C2'	GUA	73	-14.063	-17.714	5.606	1.00	0.00
ATOM	706	O3'	GUA	73	-16.422	-17.562	6.291	1.00	0.00
ATOM	707	P	GUA	74	-16.594	-16.131	7.021	1.00	0.00
ATOM	708	OP1	GUA	74	-17.977	-16.040	7.540	1.00	0.00
ATOM	709	OP2	GUA	74	-16.071	-15.073	6.128	1.00	0.00
ATOM	710	O5'	GUA	74	-15.593	-16.273	8.275	1.00	0.00
ATOM	711	C5'	GUA	74	-15.891	-17.150	9.345	1.00	0.00
ATOM	712	C4'	GUA	74	-14.736	-17.192	10.348	1.00	0.00
ATOM	713	O4'	GUA	74	-13.548	-17.612	9.706	1.00	0.00
ATOM	714	C1'	GUA	74	-12.450	-17.030	10.370	1.00	0.00
ATOM	715	N9	GUA	74	-11.262	-17.076	9.489	1.00	0.00
ATOM	716	C8	GUA	74	-11.181	-16.711	8.168	1.00	0.00
ATOM	717	N7	GUA	74	-10.034	-16.974	7.609	1.00	0.00
ATOM	718	C5	GUA	74	-9.293	-17.551	8.632	1.00	0.00

731				732					
ATOM	719	C6	GUA	74	-7.974	-18.093	8.613	1.00	0.00
ATOM	720	O6	GUA	74	-7.213	-18.184	7.653	1.00	0.00
ATOM	721	N1	GUA	74	-7.578	-18.583	9.851	1.00	0.00
ATOM	722	C2	GUA	74	-8.377	-18.594	10.975	1.00	0.00
ATOM	723	N2	GUA	74	-7.843	-19.055	12.108	1.00	0.00
ATOM	724	N3	GUA	74	-9.628	-18.111	10.990	1.00	0.00
ATOM	725	C4	GUA	74	-10.029	-17.606	9.792	1.00	0.00
ATOM	726	C3'	GUA	74	-14.412	-15.831	10.988	1.00	0.00
ATOM	727	C2'	GUA	74	-12.955	-15.606	10.572	1.00	0.00
ATOM	728	O3'	GUA	74	-14.601	-15.943	12.391	1.00	0.00
ATOM	729	P	THY	75	-14.351	-14.716	13.415	1.00	0.00
ATOM	730	OP1	THY	75	-15.266	-14.879	14.566	1.00	0.00
ATOM	731	OP2	THY	75	-14.340	-13.448	12.652	1.00	0.00
ATOM	732	O5'	THY	75	-12.852	-15.020	13.918	1.00	0.00
ATOM	733	C5'	THY	75	-12.572	-16.184	14.672	1.00	0.00
ATOM	734	C4'	THY	75	-11.064	-16.368	14.836	1.00	0.00
ATOM	735	O4'	THY	75	-10.424	-16.342	13.574	1.00	0.00
ATOM	736	C1'	THY	75	-9.101	-15.897	13.767	1.00	0.00
ATOM	737	N1	THY	75	-8.489	-15.476	12.477	1.00	0.00
ATOM	738	C6	THY	75	-9.224	-14.767	11.554	1.00	0.00
ATOM	739	C5	THY	75	-8.732	-14.511	10.315	1.00	0.00
ATOM	740	C7	THY	75	-9.626	-13.724	9.375	1.00	0.00
ATOM	741	C4	THY	75	-7.420	-14.974	9.909	1.00	0.00
ATOM	742	O4	THY	75	-6.927	-14.856	8.790	1.00	0.00
ATOM	743	N3	THY	75	-6.720	-15.622	10.911	1.00	0.00
ATOM	744	C2	THY	75	-7.187	-15.891	12.190	1.00	0.00
ATOM	745	O2	THY	75	-6.466	-16.469	12.999	1.00	0.00
ATOM	746	C3'	THY	75	-10.381	-15.277	15.680	1.00	0.00
ATOM	747	C2'	THY	75	-9.328	-14.724	14.713	1.00	0.00
ATOM	748	O3'	THY	75	-9.821	-15.893	16.828	1.00	0.00
ATOM	749	P	THY	76	-9.016	-15.079	17.970	1.00	0.00
ATOM	750	OP1	THY	76	-9.106	-13.628	17.687	1.00	0.00
ATOM	751	OP2	THY	76	-9.429	-15.603	19.291	1.00	0.00
ATOM	752	O5'	THY	76	-7.501	-15.549	17.694	1.00	0.00
ATOM	753	C5'	THY	76	-7.125	-16.906	17.843	1.00	0.00
ATOM	754	C4'	THY	76	-5.682	-17.125	17.379	1.00	0.00
ATOM	755	O4'	THY	76	-5.538	-16.620	16.065	1.00	0.00
ATOM	756	C1'	THY	76	-4.392	-15.804	15.978	1.00	0.00
ATOM	757	N1	THY	76	-4.590	-14.813	14.884	1.00	0.00
ATOM	758	C6	THY	76	-5.618	-13.898	14.943	1.00	0.00
ATOM	759	C5	THY	76	-5.942	-13.133	13.870	1.00	0.00
ATOM	760	C7	THY	76	-7.063	-12.124	14.042	1.00	0.00
ATOM	761	C4	THY	76	-5.246	-13.268	12.610	1.00	0.00
ATOM	762	O4	THY	76	-5.526	-12.671	11.574	1.00	0.00
ATOM	763	N3	THY	76	-4.200	-14.172	12.638	1.00	0.00
ATOM	764	C2	THY	76	-3.814	-14.934	13.730	1.00	0.00
ATOM	765	O2	THY	76	-2.827	-15.664	13.653	1.00	0.00
ATOM	766	C3'	THY	76	-4.634	-16.402	18.240	1.00	0.00
ATOM	767	C2'	THY	76	-4.281	-15.193	17.376	1.00	0.00
ATOM	768	O3'	THY	76	-3.530	-17.275	18.425	1.00	0.00

733					734				
ATOM	769	P	ADE	77	-2.373	-16.993	19.513	1.00	0.00
ATOM	770	OP1	ADE	77	-1.801	-18.317	19.856	1.00	0.00
ATOM	771	OP2	ADE	77	-2.926	-16.144	20.587	1.00	0.00
ATOM	772	O5'	ADE	77	-1.272	-16.143	18.695	1.00	0.00
ATOM	773	C5'	ADE	77	-0.251	-16.780	17.953	1.00	0.00
ATOM	774	C4'	ADE	77	0.460	-15.796	17.018	1.00	0.00
ATOM	775	O4'	ADE	77	-0.451	-15.205	16.118	1.00	0.00
ATOM	776	C1'	ADE	77	0.206	-14.100	15.543	1.00	0.00
ATOM	777	N9	ADE	77	-0.771	-13.211	14.879	1.00	0.00
ATOM	778	C8	ADE	77	-1.960	-12.734	15.373	1.00	0.00
ATOM	779	N7	ADE	77	-2.672	-12.068	14.509	1.00	0.00
ATOM	780	C5	ADE	77	-1.885	-12.083	13.364	1.00	0.00
ATOM	781	C6	ADE	77	-2.072	-11.564	12.069	1.00	0.00
ATOM	782	N6	ADE	77	-3.184	-10.919	11.718	1.00	0.00
ATOM	783	N1	ADE	77	-1.082	-11.698	11.168	1.00	0.00
ATOM	784	C2	ADE	77	0.032	-12.331	11.530	1.00	0.00
ATOM	785	N3	ADE	77	0.307	-12.915	12.694	1.00	0.00
ATOM	786	C4	ADE	77	-0.706	-12.744	13.587	1.00	0.00
ATOM	787	C3'	ADE	77	1.169	-14.616	17.700	1.00	0.00
ATOM	788	C2'	ADE	77	0.859	-13.444	16.757	1.00	0.00
ATOM	789	O3'	ADE	77	2.556	-14.905	17.799	1.00	0.00
ATOM	790	P	GUA	78	3.608	-13.915	18.529	1.00	0.00
ATOM	791	OP1	GUA	78	4.762	-14.732	18.967	1.00	0.00
ATOM	792	OP2	GUA	78	2.875	-13.106	19.528	1.00	0.00
ATOM	793	O5'	GUA	78	4.093	-12.937	17.336	1.00	0.00
ATOM	794	C5'	GUA	78	4.935	-13.401	16.294	1.00	0.00
ATOM	795	C4'	GUA	78	5.075	-12.365	15.167	1.00	0.00
ATOM	796	O4'	GUA	78	3.794	-12.095	14.615	1.00	0.00
ATOM	797	C1'	GUA	78	3.673	-10.707	14.401	1.00	0.00
ATOM	798	N9	GUA	78	2.254	-10.292	14.319	1.00	0.00
ATOM	799	C8	GUA	78	1.312	-10.249	15.317	1.00	0.00
ATOM	800	N7	GUA	78	0.155	-9.782	14.944	1.00	0.00
ATOM	801	C5	GUA	78	0.337	-9.481	13.600	1.00	0.00
ATOM	802	C6	GUA	78	-0.563	-8.898	12.659	1.00	0.00
ATOM	803	O6	GUA	78	-1.721	-8.527	12.842	1.00	0.00
ATOM	804	N1	GUA	78	0.001	-8.768	11.396	1.00	0.00
ATOM	805	C2	GUA	78	1.280	-9.160	11.064	1.00	0.00
ATOM	806	N2	GUA	78	1.680	-8.945	9.809	1.00	0.00
ATOM	807	N3	GUA	78	2.135	-9.695	11.947	1.00	0.00
ATOM	808	C4	GUA	78	1.608	-9.823	13.198	1.00	0.00
ATOM	809	C3'	GUA	78	5.648	-11.004	15.613	1.00	0.00
ATOM	810	C2'	GUA	78	4.381	-10.152	15.634	1.00	0.00
ATOM	811	O3'	GUA	78	6.578	-10.532	14.644	1.00	0.00
ATOM	812	P	GUA	79	7.500	-9.220	14.883	1.00	0.00
ATOM	813	OP1	GUA	79	8.918	-9.632	14.779	1.00	0.00
ATOM	814	OP2	GUA	79	7.030	-8.522	16.101	1.00	0.00
ATOM	815	O5'	GUA	79	7.151	-8.286	13.610	1.00	0.00
ATOM	816	C5'	GUA	79	7.738	-8.526	12.343	1.00	0.00
ATOM	817	C4'	GUA	79	7.134	-7.637	11.243	1.00	0.00
ATOM	818	O4'	GUA	79	5.722	-7.783	11.240	1.00	0.00

(369)

特開2003-135087

735

736

ATOM	819	C1'	GUA	79	5.100	-6.515	11.311	1.00	0.00
ATOM	820	N9	GUA	79	3.837	-6.600	12.072	1.00	0.00
ATOM	821	C8	GUA	79	3.655	-7.057	13.352	1.00	0.00
ATOM	822	N7	GUA	79	2.443	-6.909	13.806	1.00	0.00
ATOM	823	C5	GUA	79	1.765	-6.317	12.747	1.00	0.00
ATOM	824	C6	GUA	79	0.410	-5.883	12.655	1.00	0.00
ATOM	825	O6	GUA	79	-0.467	-5.958	13.509	1.00	0.00
ATOM	826	N1	GUA	79	0.117	-5.302	11.427	1.00	0.00
ATOM	827	C2	GUA	79	1.026	-5.147	10.402	1.00	0.00
ATOM	828	N2	GUA	79	0.639	-4.451	9.331	1.00	0.00
ATOM	829	N3	GUA	79	2.294	-5.574	10.478	1.00	0.00
ATOM	830	C4	GUA	79	2.604	-6.141	11.674	1.00	0.00
ATOM	831	C3'	GUA	79	7.416	-6.133	11.402	1.00	0.00
ATOM	832	C2'	GUA	79	6.121	-5.653	12.048	1.00	0.00
ATOM	833	O3'	GUA	79	7.633	-5.563	10.117	1.00	0.00
ATOM	834	P	GUA	80	8.074	-4.021	9.909	1.00	0.00
ATOM	835	OP1	GUA	80	8.669	-3.888	8.560	1.00	0.00
ATOM	836	OP2	GUA	80	8.846	-3.585	11.093	1.00	0.00
ATOM	837	O5'	GUA	80	6.665	-3.236	9.912	1.00	0.00
ATOM	838	C5'	GUA	80	5.789	-3.293	8.801	1.00	0.00
ATOM	839	C4'	GUA	80	4.502	-2.508	9.080	1.00	0.00
ATOM	840	O4'	GUA	80	3.753	-3.102	10.127	1.00	0.00
ATOM	841	C1'	GUA	80	3.011	-2.085	10.760	1.00	0.00
ATOM	842	N9	GUA	80	2.431	-2.528	12.046	1.00	0.00
ATOM	843	C8	GUA	80	3.063	-3.126	13.105	1.00	0.00
ATOM	844	N7	GUA	80	2.274	-3.394	14.111	1.00	0.00
ATOM	845	C5	GUA	80	1.020	-2.963	13.686	1.00	0.00
ATOM	846	C6	GUA	80	-0.261	-3.047	14.322	1.00	0.00
ATOM	847	O6	GUA	80	-0.540	-3.500	15.431	1.00	0.00
ATOM	848	N1	GUA	80	-1.286	-2.545	13.526	1.00	0.00
ATOM	849	C2	GUA	80	-1.107	-2.016	12.265	1.00	0.00
ATOM	850	N2	GUA	80	-2.185	-1.541	11.635	1.00	0.00
ATOM	851	N3	GUA	80	0.090	-1.939	11.662	1.00	0.00
ATOM	852	C4	GUA	80	1.108	-2.436	12.418	1.00	0.00
ATOM	853	C3'	GUA	80	4.745	-1.062	9.547	1.00	0.00
ATOM	854	C2'	GUA	80	4.109	-1.042	10.940	1.00	0.00
ATOM	855	O3'	GUA	80	4.076	-0.148	8.700	1.00	0.00
ATOM	856	O5'	CYT	81	-11.013	-2.058	15.199	1.00	0.00
ATOM	857	C5'	CYT	81	-10.755	-0.901	14.430	1.00	0.00
ATOM	858	C4'	CYT	81	-9.448	-1.029	13.639	1.00	0.00
ATOM	859	O4'	CYT	81	-8.356	-1.336	14.481	1.00	0.00
ATOM	860	C1'	CYT	81	-7.310	-1.764	13.637	1.00	0.00
ATOM	861	N1	CYT	81	-6.237	-2.470	14.383	1.00	0.00
ATOM	862	C6	CYT	81	-6.558	-3.412	15.328	1.00	0.00
ATOM	863	C5	CYT	81	-5.604	-4.136	15.957	1.00	0.00
ATOM	864	C4	CYT	81	-4.238	-3.861	15.606	1.00	0.00
ATOM	865	N4	CYT	81	-3.240	-4.524	16.192	1.00	0.00
ATOM	866	N3	CYT	81	-3.931	-2.956	14.667	1.00	0.00
ATOM	867	C2	CYT	81	-4.905	-2.253	14.024	1.00	0.00
ATOM	868	O2	CYT	81	-4.598	-1.458	13.139	1.00	0.00

(370)

特開2003-135087

737

738

ATOM	869	C3'	CYT	81	-9.447	-2.156	12.596	1.00	0.00
ATOM	870	C2'	CYT	81	-8.031	-2.724	12.701	1.00	0.00
ATOM	871	O3'	CYT	81	-9.746	-1.626	11.315	1.00	0.00
ATOM	872	P	CYT	82	-9.890	-2.565	10.006	1.00	0.00
ATOM	873	OP1	CYT	82	-10.179	-3.943	10.461	1.00	0.00
ATOM	874	OP2	CYT	82	-10.815	-1.893	9.066	1.00	0.00
ATOM	875	O5'	CYT	82	-8.409	-2.551	9.360	1.00	0.00
ATOM	876	C5'	CYT	82	-7.897	-1.401	8.708	1.00	0.00
ATOM	877	C4'	CYT	82	-6.515	-1.677	8.100	1.00	0.00
ATOM	878	O4'	CYT	82	-5.584	-2.000	9.113	1.00	0.00
ATOM	879	C1'	CYT	82	-4.743	-3.056	8.694	1.00	0.00
ATOM	880	N1	CYT	82	-4.357	-3.831	9.897	1.00	0.00
ATOM	881	C6	CYT	82	-5.338	-4.216	10.768	1.00	0.00
ATOM	882	C5	CYT	82	-5.068	-4.898	11.894	1.00	0.00
ATOM	883	C4	CYT	82	-3.688	-5.204	12.149	1.00	0.00
ATOM	884	N4	CYT	82	-3.347	-5.912	13.226	1.00	0.00
ATOM	885	N3	CYT	82	-2.728	-4.844	11.283	1.00	0.00
ATOM	886	C2	CYT	82	-3.026	-4.164	10.138	1.00	0.00
ATOM	887	O2	CYT	82	-2.134	-3.865	9.347	1.00	0.00
ATOM	888	C3'	CYT	82	-6.517	-2.856	7.116	1.00	0.00
ATOM	889	C2'	CYT	82	-5.653	-3.902	7.808	1.00	0.00
ATOM	890	O3'	CYT	82	-5.984	-2.413	5.876	1.00	0.00
ATOM	891	P	CYT	83	-5.949	-3.348	4.560	1.00	0.00
ATOM	892	OP1	CYT	83	-5.889	-2.468	3.372	1.00	0.00
ATOM	893	OP2	CYT	83	-7.023	-4.358	4.677	1.00	0.00
ATOM	894	O5'	CYT	83	-4.535	-4.104	4.705	1.00	0.00
ATOM	895	C5'	CYT	83	-3.316	-3.504	4.303	1.00	0.00
ATOM	896	C4'	CYT	83	-2.147	-4.432	4.658	1.00	0.00
ATOM	897	O4'	CYT	83	-2.122	-4.659	6.054	1.00	0.00
ATOM	898	C1'	CYT	83	-1.408	-5.849	6.333	1.00	0.00
ATOM	899	N1	CYT	83	-2.046	-6.546	7.477	1.00	0.00
ATOM	900	C6	CYT	83	-3.409	-6.648	7.518	1.00	0.00
ATOM	901	C5	CYT	83	-4.052	-7.137	8.602	1.00	0.00
ATOM	902	C4	CYT	83	-3.230	-7.579	9.690	1.00	0.00
ATOM	903	N4	CYT	83	-3.784	-8.045	10.810	1.00	0.00
ATOM	904	N3	CYT	83	-1.894	-7.602	9.585	1.00	0.00
ATOM	905	C2	CYT	83	-1.266	-7.116	8.478	1.00	0.00
ATOM	906	O2	CYT	83	-0.045	-7.212	8.371	1.00	0.00
ATOM	907	C3'	CYT	83	-2.303	-5.832	4.059	1.00	0.00
ATOM	908	C2'	CYT	83	-1.556	-6.696	5.071	1.00	0.00
ATOM	909	O3'	CYT	83	-1.742	-5.919	2.759	1.00	0.00
ATOM	910	P	THY	84	-1.975	-7.210	1.810	1.00	0.00
ATOM	911	OP1	THY	84	-3.400	-7.601	1.885	1.00	0.00
ATOM	912	OP2	THY	84	-1.364	-6.932	0.492	1.00	0.00
ATOM	913	O5'	THY	84	-1.119	-8.380	2.512	1.00	0.00
ATOM	914	C5'	THY	84	0.296	-8.395	2.476	1.00	0.00
ATOM	915	C4'	THY	84	0.795	-9.539	3.364	1.00	0.00
ATOM	916	O4'	THY	84	0.192	-9.440	4.640	1.00	0.00
ATOM	917	C1'	THY	84	0.050	-10.724	5.201	1.00	0.00
ATOM	918	N1	THY	84	-1.039	-10.693	6.216	1.00	0.00

(371)

特開2003-135087

739

740

ATOM	919	C6	THY	84	-2.278	-10.205	5.870	1.00	0.00
ATOM	920	C5	THY	84	-3.288	-10.145	6.770	1.00	0.00
ATOM	921	C7	THY	84	-4.609	-9.611	6.246	1.00	0.00
ATOM	922	C4	THY	84	-3.106	-10.575	8.139	1.00	0.00
ATOM	923	O4	THY	84	-3.971	-10.560	9.010	1.00	0.00
ATOM	924	N3	THY	84	-1.825	-11.024	8.425	1.00	0.00
ATOM	925	C2	THY	84	-0.781	-11.132	7.516	1.00	0.00
ATOM	926	O2	THY	84	0.297	-11.603	7.867	1.00	0.00
ATOM	927	C3'	THY	84	0.405	-10.920	2.817	1.00	0.00
ATOM	928	C2'	THY	84	-0.330	-11.578	3.991	1.00	0.00
ATOM	929	O3'	THY	84	1.573	-11.610	2.403	1.00	0.00
ATOM	930	P	ADE	85	1.529	-13.108	1.801	1.00	0.00
ATOM	931	OP1	ADE	85	0.164	-13.366	1.286	1.00	0.00
ATOM	932	OP2	ADE	85	2.703	-13.311	0.926	1.00	0.00
ATOM	933	O5'	ADE	85	1.735	-13.991	3.127	1.00	0.00
ATOM	934	C5'	ADE	85	2.903	-13.854	3.914	1.00	0.00
ATOM	935	C4'	ADE	85	2.713	-14.603	5.232	1.00	0.00
ATOM	936	O4'	ADE	85	1.565	-14.120	5.907	1.00	0.00
ATOM	937	C1'	ADE	85	0.964	-15.187	6.606	1.00	0.00
ATOM	938	N9	ADE	85	-0.441	-14.837	6.911	1.00	0.00
ATOM	939	C8	ADE	85	-1.420	-14.414	6.046	1.00	0.00
ATOM	940	N7	ADE	85	-2.527	-14.037	6.622	1.00	0.00
ATOM	941	C5	ADE	85	-2.272	-14.245	7.972	1.00	0.00
ATOM	942	C6	ADE	85	-3.038	-14.036	9.133	1.00	0.00
ATOM	943	N6	ADE	85	-4.280	-13.549	9.100	1.00	0.00
ATOM	944	N1	ADE	85	-2.506	-14.366	10.322	1.00	0.00
ATOM	945	C2	ADE	85	-1.277	-14.870	10.359	1.00	0.00
ATOM	946	N3	ADE	85	-0.447	-15.104	9.349	1.00	0.00
ATOM	947	C4	ADE	85	-1.011	-14.757	8.160	1.00	0.00
ATOM	948	C3'	ADE	85	2.478	-16.105	5.021	1.00	0.00
ATOM	949	C2'	ADE	85	1.071	-16.314	5.587	1.00	0.00
ATOM	950	O3'	ADE	85	3.481	-16.810	5.722	1.00	0.00
ATOM	951	P	ADE	86	3.587	-18.415	5.703	1.00	0.00
ATOM	952	OP1	ADE	86	2.732	-18.934	4.608	1.00	0.00
ATOM	953	OP2	ADE	86	5.025	-18.764	5.737	1.00	0.00
ATOM	954	O5'	ADE	86	2.922	-18.803	7.113	1.00	0.00
ATOM	955	C5'	ADE	86	3.522	-18.371	8.316	1.00	0.00
ATOM	956	C4'	ADE	86	2.683	-18.766	9.526	1.00	0.00
ATOM	957	O4'	ADE	86	1.407	-18.155	9.478	1.00	0.00
ATOM	958	C1'	ADE	86	0.393	-19.116	9.686	1.00	0.00
ATOM	959	N9	ADE	86	-0.823	-18.665	8.974	1.00	0.00
ATOM	960	C8	ADE	86	-1.026	-18.579	7.619	1.00	0.00
ATOM	961	N7	ADE	86	-2.150	-18.016	7.273	1.00	0.00
ATOM	962	C5	ADE	86	-2.746	-17.715	8.491	1.00	0.00
ATOM	963	C6	ADE	86	-3.970	-17.107	8.829	1.00	0.00
ATOM	964	N6	ADE	86	-4.810	-16.632	7.908	1.00	0.00
ATOM	965	N1	ADE	86	-4.286	-16.975	10.129	1.00	0.00
ATOM	966	C2	ADE	86	-3.420	-17.397	11.045	1.00	0.00
ATOM	967	N3	ADE	86	-2.217	-17.938	10.864	1.00	0.00
ATOM	968	C4	ADE	86	-1.943	-18.095	9.537	1.00	0.00

(372)

特開2003-135087

741				742				
ATOM	969	C3' ADE	86	2.441	-20.274	9.629	1.00	0.00
ATOM	970	C2' ADE	86	1.001	-20.408	9.142	1.00	0.00
ATOM	971	O3' ADE	86	2.631	-20.614	10.987	1.00	0.00
ATOM	972	P CYT	87	2.669	-22.131	11.513	1.00	0.00
ATOM	973	OP1 CYT	87	2.832	-23.048	10.357	1.00	0.00
ATOM	974	OP2 CYT	87	3.638	-22.173	12.627	1.00	0.00
ATOM	975	O5' CYT	87	1.182	-22.254	12.124	1.00	0.00
ATOM	976	C5' CYT	87	0.847	-21.574	13.322	1.00	0.00
ATOM	977	C4' CYT	87	-0.665	-21.428	13.498	1.00	0.00
ATOM	978	O4' CYT	87	-1.251	-20.836	12.358	1.00	0.00
ATOM	979	C1' CYT	87	-2.631	-21.113	12.414	1.00	0.00
ATOM	980	N1 CYT	87	-3.289	-20.917	11.097	1.00	0.00
ATOM	981	C6 CYT	87	-2.669	-21.324	9.941	1.00	0.00
ATOM	982	C5 CYT	87	-3.241	-21.132	8.729	1.00	0.00
ATOM	983	C4 CYT	87	-4.518	-20.476	8.707	1.00	0.00
ATOM	984	N4 CYT	87	-5.125	-20.189	7.556	1.00	0.00
ATOM	985	N3 CYT	87	-5.125	-20.100	9.839	1.00	0.00
ATOM	986	C2 CYT	87	-4.554	-20.330	11.053	1.00	0.00
ATOM	987	O2 CYT	87	-5.154	-20.007	12.077	1.00	0.00
ATOM	988	C3' CYT	87	-1.418	-22.749	13.707	1.00	0.00
ATOM	989	C2' CYT	87	-2.637	-22.585	12.799	1.00	0.00
ATOM	990	O3' CYT	87	-1.759	-22.871	15.080	1.00	0.00
ATOM	991	P CYT	88	-2.504	-24.164	15.700	1.00	0.00
ATOM	992	OP1 CYT	88	-2.137	-25.350	14.897	1.00	0.00
ATOM	993	OP2 CYT	88	-2.265	-24.158	17.163	1.00	0.00
ATOM	994	O5' CYT	88	-4.063	-23.837	15.462	1.00	0.00
ATOM	995	C5' CYT	88	-4.732	-22.866	16.247	1.00	0.00
ATOM	996	C4' CYT	88	-6.136	-22.588	15.709	1.00	0.00
ATOM	997	O4' CYT	88	-6.082	-22.191	14.356	1.00	0.00
ATOM	998	C1' CYT	88	-7.283	-22.581	13.731	1.00	0.00
ATOM	999	N1 CYT	88	-7.053	-22.708	12.279	1.00	0.00
ATOM	1000	C6 CYT	88	-5.935	-23.360	11.838	1.00	0.00
ATOM	1001	C5 CYT	88	-5.664	-23.504	10.529	1.00	0.00
ATOM	1002	C4 CYT	88	-6.623	-22.955	9.612	1.00	0.00
ATOM	1003	N4 CYT	88	-6.456	-23.054	8.296	1.00	0.00
ATOM	1004	N3 CYT	88	-7.742	-22.363	10.048	1.00	0.00
ATOM	1005	C2 CYT	88	-8.000	-22.234	11.378	1.00	0.00
ATOM	1006	O2 CYT	88	-9.054	-21.728	11.749	1.00	0.00
ATOM	1007	C3' CYT	88	-7.053	-23.819	15.752	1.00	0.00
ATOM	1008	C2' CYT	88	-7.522	-23.968	14.311	1.00	0.00
ATOM	1009	O3' CYT	88	-8.103	-23.553	16.668	1.00	0.00
ATOM	1010	P CYT	89	-9.326	-24.573	16.926	1.00	0.00
ATOM	1011	OP1 CYT	89	-8.882	-25.937	16.560	1.00	0.00
ATOM	1012	OP2 CYT	89	-9.864	-24.310	18.278	1.00	0.00
ATOM	1013	O5' CYT	89	-10.422	-24.094	15.841	1.00	0.00
ATOM	1014	C5' CYT	89	-11.036	-22.819	15.919	1.00	0.00
ATOM	1015	C4' CYT	89	-12.065	-22.649	14.794	1.00	0.00
ATOM	1016	O4' CYT	89	-11.424	-22.737	13.536	1.00	0.00
ATOM	1017	C1' CYT	89	-12.256	-23.395	12.602	1.00	0.00
ATOM	1018	N1 CYT	89	-11.385	-24.075	11.612	1.00	0.00

(373)

特開2003-135087

743

744

ATOM	1019	C6	CYT	89	-10.326	-24.820	12.059	1.00	0.00
ATOM	1020	C5	CYT	89	-9.400	-25.321	11.217	1.00	0.00
ATOM	1021	C4	CYT	89	-9.582	-25.046	9.820	1.00	0.00
ATOM	1022	N4	CYT	89	-8.688	-25.470	8.927	1.00	0.00
ATOM	1023	N3	CYT	89	-10.652	-24.371	9.377	1.00	0.00
ATOM	1024	C2	CYT	89	-11.587	-23.886	10.246	1.00	0.00
ATOM	1025	O2	CYT	89	-12.585	-23.315	9.816	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.142	-23.743	14.811	1.00	0.00
ATOM	1027	C2'	CYT	89	-12.993	-24.420	13.454	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.418	-23.153	15.002	1.00	0.00
ATOM	1029	P	THY	90	-15.782	-24.018	15.089	1.00	0.00
ATOM	1030	OP1	THY	90	-16.719	-23.312	15.991	1.00	0.00
ATOM	1031	OP2	THY	90	-15.429	-25.431	15.353	1.00	0.00
ATOM	1032	O5'	THY	90	-16.365	-23.928	13.588	1.00	0.00
ATOM	1033	C5'	THY	90	-16.815	-22.699	13.047	1.00	0.00
ATOM	1034	C4'	THY	90	-17.167	-22.869	11.566	1.00	0.00
ATOM	1035	O4'	THY	90	-16.044	-23.407	10.896	1.00	0.00
ATOM	1036	C1'	THY	90	-16.450	-24.403	9.985	1.00	0.00
ATOM	1037	N1	THY	90	-15.318	-25.351	9.815	1.00	0.00
ATOM	1038	C6	THY	90	-14.836	-26.045	10.899	1.00	0.00
ATOM	1039	C5	THY	90	-13.708	-26.788	10.817	1.00	0.00
ATOM	1040	C7	THY	90	-13.303	-27.554	12.064	1.00	0.00
ATOM	1041	C4	THY	90	-12.937	-26.852	9.597	1.00	0.00
ATOM	1042	O4	THY	90	-11.862	-27.432	9.474	1.00	0.00
ATOM	1043	N3	THY	90	-13.505	-26.168	8.531	1.00	0.00
ATOM	1044	C2	THY	90	-14.690	-25.446	8.573	1.00	0.00
ATOM	1045	O2	THY	90	-15.145	-24.945	7.548	1.00	0.00
ATOM	1046	C3'	THY	90	-18.341	-23.833	11.318	1.00	0.00
ATOM	1047	C2'	THY	90	-17.662	-25.038	10.669	1.00	0.00
ATOM	1048	O3'	THY	90	-19.292	-23.202	10.473	1.00	0.00
ATOM	1049	P	ADE	91	-20.717	-23.875	10.109	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.640	-22.800	9.681	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.107	-24.783	11.210	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.358	-24.772	8.820	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.113	-24.177	7.561	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.526	-25.199	6.585	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.285	-25.689	7.043	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.013	-26.855	6.303	1.00	0.00
ATOM	1057	N9	ADE	91	-16.943	-27.629	6.957	1.00	0.00
ATOM	1058	C8	ADE	91	-16.840	-27.965	8.281	1.00	0.00
ATOM	1059	N7	ADE	91	-15.725	-28.566	8.594	1.00	0.00
ATOM	1060	C5	ADE	91	-15.054	-28.657	7.377	1.00	0.00
ATOM	1061	C6	ADE	91	-13.796	-29.171	7.005	1.00	0.00
ATOM	1062	N6	ADE	91	-12.935	-29.687	7.886	1.00	0.00
ATOM	1063	N1	ADE	91	-13.454	-29.156	5.704	1.00	0.00
ATOM	1064	C2	ADE	91	-14.300	-28.639	4.817	1.00	0.00
ATOM	1065	N3	ADE	91	-15.483	-28.080	5.043	1.00	0.00
ATOM	1066	C4	ADE	91	-15.807	-28.120	6.364	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.381	-26.459	6.373	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.344	-27.590	6.375	1.00	0.00

(374)

特開2003-135087

745

746

ATOM	1069	O3'	ADE	91	-21.091	-26.312	5.152	1.00	0.00
ATOM	1070	P	ADE	92	-21.999	-27.483	4.505	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.962	-26.856	3.572	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.489	-28.363	5.590	1.00	0.00
ATOM	1073	O5'	ADE	92	-20.923	-28.308	3.632	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.202	-27.687	2.582	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.130	-28.633	2.032	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.195	-28.963	3.046	1.00	0.00
ATOM	1077	C1'	ADE	92	-17.827	-30.318	2.908	1.00	0.00
ATOM	1078	N9	ADE	92	-17.261	-30.827	4.179	1.00	0.00
ATOM	1079	C8	ADE	92	-17.838	-30.817	5.425	1.00	0.00
ATOM	1080	N7	ADE	92	-17.078	-31.276	6.379	1.00	0.00
ATOM	1081	C5	ADE	92	-15.907	-31.622	5.718	1.00	0.00
ATOM	1082	C6	ADE	92	-14.686	-32.164	6.164	1.00	0.00
ATOM	1083	N6	ADE	92	-14.460	-32.428	7.452	1.00	0.00
ATOM	1084	N1	ADE	92	-13.711	-32.393	5.265	1.00	0.00
ATOM	1085	C2	ADE	92	-13.943	-32.102	3.987	1.00	0.00
ATOM	1086	N3	ADE	92	-15.044	-31.591	3.440	1.00	0.00
ATOM	1087	C4	ADE	92	-16.006	-31.361	4.374	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.708	-29.967	1.532	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.178	-30.947	2.580	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.207	-30.219	0.229	1.00	0.00
ATOM	1091	P	CYT	93	-19.705	-31.467	-0.665	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.799	-32.165	0.046	1.00	0.00
ATOM	1093	OP2	CYT	93	-19.907	-30.998	-2.054	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.412	-32.421	-0.637	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.242	-32.089	-1.362	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.130	-33.073	-0.996	1.00	0.00
ATOM	1097	O4'	CYT	93	-15.958	-33.057	0.402	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.474	-34.309	0.825	1.00	0.00
ATOM	1099	N1	CYT	93	-15.831	-34.512	2.250	1.00	0.00
ATOM	1100	C6	CYT	93	-17.081	-34.172	2.705	1.00	0.00
ATOM	1101	C5	CYT	93	-17.425	-34.314	4.005	1.00	0.00
ATOM	1102	C4	CYT	93	-16.417	-34.827	4.888	1.00	0.00
ATOM	1103	N4	CYT	93	-16.632	-34.904	6.202	1.00	0.00
ATOM	1104	N3	CYT	93	-15.211	-35.185	4.430	1.00	0.00
ATOM	1105	C2	CYT	93	-14.888	-35.052	3.115	1.00	0.00
ATOM	1106	O2	CYT	93	-13.778	-35.399	2.721	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.475	-34.528	-1.345	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.218	-35.309	-0.058	1.00	0.00
ATOM	1109	O3'	CYT	93	-15.648	-35.010	-2.384	1.00	0.00

END

HEADER 000000

REMARK	0.00520	1.66899	0.02539	0.01749	2.60790	1.69038
0.00000						

REMARK	2.64204	0.22775	0.56348	1.26581	0.58500
--------	---------	---------	---------	---------	---------

REMARK	0.01047	0.00453	0.00632	0.02002	0.00708
--------	---------	---------	---------	---------	---------

(375)

特開2003-135087

	747						748	
REMARK	126	122	4	0	0	0		
0								
REMARK	1378	305	460	273	340			
REMARK	0.03463	0.15473	0.03495	0.03360	0.15473	0.11791		
REMARK	1.58204	0.09475						
REMARK	2	2	0	0	0	0		
0								
ATOM	1	N	GLU	1	9.627	-29.265	25.817	1.00 0.00
ATOM	2	CA	GLU	1	8.356	-28.615	26.180	1.00 0.00
ATOM	3	CB	GLU	1	7.793	-29.217	27.474	1.00 0.00
ATOM	4	CG	GLU	1	7.648	-30.739	27.374	1.00 0.00
ATOM	5	CD	GLU	1	6.948	-31.284	28.612	1.00 0.00
ATOM	6	OE1	GLU	1	7.679	-31.715	29.530	1.00 0.00
ATOM	7	OE2	GLU	1	5.700	-31.234	28.621	1.00 0.00
ATOM	8	C	GLU	1	8.555	-27.103	26.299	1.00 0.00
ATOM	9	O	GLU	1	9.651	-26.613	26.034	1.00 0.00
ATOM	10	N	LYS	2	7.505	-26.373	26.692	1.00 0.00
ATOM	11	CA	LYS	2	7.526	-24.929	26.865	1.00 0.00
ATOM	12	CB	LYS	2	7.304	-24.216	25.520	1.00 0.00
ATOM	13	CG	LYS	2	6.014	-24.626	24.791	1.00 0.00
ATOM	14	CD	LYS	2	5.938	-24.032	23.376	1.00 0.00
ATOM	15	CE	LYS	2	6.863	-24.745	22.379	1.00 0.00
ATOM	16	NZ	LYS	2	6.700	-24.217	21.011	1.00 0.00
ATOM	17	C	LYS	2	6.500	-24.567	27.942	1.00 0.00
ATOM	18	O	LYS	2	5.333	-24.944	27.838	1.00 0.00
ATOM	19	N	HIS	3	6.944	-23.862	28.987	1.00 0.00
ATOM	20	CA	HIS	3	6.109	-23.479	30.116	1.00 0.00
ATOM	21	CB	HIS	3	7.005	-23.068	31.294	1.00 0.00
ATOM	22	CG	HIS	3	6.227	-22.709	32.538	1.00 0.00
ATOM	23	ND1	HIS	3	5.630	-21.470	32.706	1.00 0.00
ATOM	24	CE1	HIS	3	5.023	-21.475	33.904	1.00 0.00
ATOM	25	NE2	HIS	3	5.169	-22.633	34.551	1.00 0.00
ATOM	26	CD2	HIS	3	5.933	-23.410	33.684	1.00 0.00
ATOM	27	C	HIS	3	5.114	-22.378	29.743	1.00 0.00
ATOM	28	O	HIS	3	5.422	-21.193	29.871	1.00 0.00
ATOM	29	N	ARG	4	3.915	-22.782	29.308	1.00 0.00
ATOM	30	CA	ARG	4	2.812	-21.902	28.944	1.00 0.00
ATOM	31	CB	ARG	4	2.147	-21.390	30.234	1.00 0.00
ATOM	32	CG	ARG	4	0.763	-20.778	29.979	1.00 0.00
ATOM	33	CD	ARG	4	0.190	-20.175	31.268	1.00 0.00
ATOM	34	NE	ARG	4	0.051	-21.169	32.344	1.00 0.00
ATOM	35	CZ	ARG	4	-0.937	-22.075	32.450	1.00 0.00
ATOM	36	NH1	ARG	4	-0.952	-22.919	33.490	1.00 0.00
ATOM	37	NH2	ARG	4	-1.903	-22.142	31.525	1.00 0.00
ATOM	38	C	ARG	4	3.275	-20.773	28.016	1.00 0.00
ATOM	39	O	ARG	4	3.204	-19.597	28.367	1.00 0.00
ATOM	40	N	ALA	5	3.756	-21.141	26.825	1.00 0.00

(376)

特開2003-135087

749

750

ATOM	41	CA	ALA	5	4.241	-20.197	25.832	1.00	0.00
ATOM	42	CB	ALA	5	5.699	-19.841	26.139	1.00	0.00
ATOM	43	C	ALA	5	4.105	-20.804	24.437	1.00	0.00
ATOM	44	O	ALA	5	3.866	-22.003	24.299	1.00	0.00
ATOM	45	N	ARG	6	4.263	-19.967	23.408	1.00	0.00
ATOM	46	CA	ARG	6	4.183	-20.347	22.007	1.00	0.00
ATOM	47	CB	ARG	6	2.736	-20.685	21.601	1.00	0.00
ATOM	48	CG	ARG	6	1.710	-19.648	22.087	1.00	0.00
ATOM	49	CD	ARG	6	0.402	-19.720	21.289	1.00	0.00
ATOM	50	NE	ARG	6	-0.120	-21.092	21.196	1.00	0.00
ATOM	51	CZ	ARG	6	-0.987	-21.515	20.260	1.00	0.00
ATOM	52	NH1	ARG	6	-1.231	-22.820	20.109	1.00	0.00
ATOM	53	NH2	ARG	6	-1.620	-20.659	19.453	1.00	0.00
ATOM	54	C	ARG	6	4.740	-19.211	21.149	1.00	0.00
ATOM	55	O	ARG	6	4.792	-18.065	21.592	1.00	0.00
ATOM	56	N	LYS	7	5.142	-19.545	19.920	1.00	0.00
ATOM	57	CA	LYS	7	5.666	-18.615	18.934	1.00	0.00
ATOM	58	CB	LYS	7	7.124	-18.218	19.249	1.00	0.00
ATOM	59	CG	LYS	7	7.533	-16.853	18.662	1.00	0.00
ATOM	60	CD	LYS	7	6.906	-15.662	19.418	1.00	0.00
ATOM	61	CE	LYS	7	7.212	-14.317	18.731	1.00	0.00
ATOM	62	NZ	LYS	7	6.324	-13.232	19.208	1.00	0.00
ATOM	63	C	LYS	7	5.473	-19.288	17.570	1.00	0.00
ATOM	64	O	LYS	7	5.606	-20.505	17.454	1.00	0.00
ATOM	65	N	ARG	8	5.117	-18.490	16.565	1.00	0.00
ATOM	66	CA	ARG	8	4.810	-18.884	15.201	1.00	0.00
ATOM	67	CB	ARG	8	4.374	-17.617	14.457	1.00	0.00
ATOM	68	CG	ARG	8	3.849	-17.881	13.044	1.00	0.00
ATOM	69	CD	ARG	8	2.794	-16.830	12.676	1.00	0.00
ATOM	70	NE	ARG	8	1.543	-17.085	13.408	1.00	0.00
ATOM	71	CZ	ARG	8	0.297	-17.015	12.913	1.00	0.00
ATOM	72	NH1	ARG	8	-0.745	-17.357	13.677	1.00	0.00
ATOM	73	NH2	ARG	8	0.066	-16.615	11.664	1.00	0.00
ATOM	74	C	ARG	8	5.976	-19.580	14.499	1.00	0.00
ATOM	75	O	ARG	8	7.112	-19.112	14.564	1.00	0.00
ATOM	76	N	GLN	9	5.678	-20.690	13.814	1.00	0.00
ATOM	77	CA	GLN	9	6.631	-21.480	13.057	1.00	0.00
ATOM	78	CB	GLN	9	6.396	-22.976	13.328	1.00	0.00
ATOM	79	CG	GLN	9	7.307	-23.923	12.531	1.00	0.00
ATOM	80	CD	GLN	9	8.790	-23.602	12.688	1.00	0.00
ATOM	81	OE1	GLN	9	9.423	-24.044	13.644	1.00	0.00
ATOM	82	NE2	GLN	9	9.362	-22.844	11.750	1.00	0.00
ATOM	83	C	GLN	9	6.479	-21.100	11.587	1.00	0.00
ATOM	84	O	GLN	9	5.821	-21.796	10.809	1.00	0.00
ATOM	85	N	ALA	10	7.107	-19.983	11.205	1.00	0.00
ATOM	86	CA	ALA	10	7.089	-19.499	9.834	1.00	0.00
ATOM	87	CB	ALA	10	7.839	-18.169	9.744	1.00	0.00
ATOM	88	C	ALA	10	7.718	-20.550	8.917	1.00	0.00
ATOM	89	O	ALA	10	8.513	-21.375	9.372	1.00	0.00
ATOM	90	N	TRP	11	7.355	-20.526	7.632	1.00	0.00

(377)

特開2003-135087

751

752

ATOM	91	CA	TRP	11	7.870	-21.474	6.661	1.00	0.00
ATOM	92	CB	TRP	11	6.854	-21.704	5.543	1.00	0.00
ATOM	93	CG	TRP	11	5.588	-22.417	5.915	1.00	0.00
ATOM	94	CD1	TRP	11	4.670	-22.012	6.822	1.00	0.00
ATOM	95	NE1	TRP	11	3.637	-22.923	6.896	1.00	0.00
ATOM	96	CE2	TRP	11	3.841	-23.972	6.024	1.00	0.00
ATOM	97	CZ2	TRP	11	3.103	-25.126	5.717	1.00	0.00
ATOM	98	CH2	TRP	11	3.595	-26.017	4.755	1.00	0.00
ATOM	99	CZ3	TRP	11	4.811	-25.752	4.105	1.00	0.00
ATOM	100	CE3	TRP	11	5.539	-24.592	4.417	1.00	0.00
ATOM	101	CD2	TRP	11	5.078	-23.674	5.384	1.00	0.00
ATOM	102	C	TRP	11	9.184	-20.976	6.065	1.00	0.00
ATOM	103	O	TRP	11	9.324	-19.798	5.740	1.00	0.00
ATOM	104	N	LEU	12	10.135	-21.898	5.915	1.00	0.00
ATOM	105	CA	LEU	12	11.451	-21.677	5.329	1.00	0.00
ATOM	106	CB	LEU	12	12.537	-22.355	6.180	1.00	0.00
ATOM	107	CG	LEU	12	12.923	-21.583	7.455	1.00	0.00
ATOM	108	CD1	LEU	12	11.787	-21.488	8.481	1.00	0.00
ATOM	109	CD2	LEU	12	14.121	-22.281	8.110	1.00	0.00
ATOM	110	C	LEU	12	11.417	-22.284	3.923	1.00	0.00
ATOM	111	O	LEU	12	10.501	-23.047	3.607	1.00	0.00
ATOM	112	N	TRP	13	12.403	-21.974	3.062	1.00	0.00
ATOM	113	CA	TRP	13	12.378	-22.553	1.725	1.00	0.00
ATOM	114	CB	TRP	13	13.353	-21.951	0.709	1.00	0.00
ATOM	115	CG	TRP	13	14.815	-22.248	0.848	1.00	0.00
ATOM	116	CD1	TRP	13	15.697	-21.306	1.206	1.00	0.00
ATOM	117	NE1	TRP	13	16.974	-21.821	1.261	1.00	0.00
ATOM	118	CE2	TRP	13	16.974	-23.157	0.922	1.00	0.00
ATOM	119	CZ2	TRP	13	17.998	-24.111	0.826	1.00	0.00
ATOM	120	CH2	TRP	13	17.683	-25.423	0.442	1.00	0.00
ATOM	121	CZ3	TRP	13	16.349	-25.764	0.159	1.00	0.00
ATOM	122	CE3	TRP	13	15.331	-24.798	0.259	1.00	0.00
ATOM	123	CD2	TRP	13	15.606	-23.467	0.647	1.00	0.00
ATOM	124	C	TRP	13	12.478	-24.064	1.749	1.00	0.00
ATOM	125	O	TRP	13	12.045	-24.673	0.792	1.00	0.00
ATOM	126	N	GLU	14	13.013	-24.713	2.785	1.00	0.00
ATOM	127	CA	GLU	14	13.030	-26.168	2.737	1.00	0.00
ATOM	128	CB	GLU	14	13.773	-26.745	3.947	1.00	0.00
ATOM	129	CG	GLU	14	13.942	-28.264	3.816	1.00	0.00
ATOM	130	CD	GLU	14	14.761	-28.840	4.967	1.00	0.00
ATOM	131	OE1	GLU	14	14.167	-29.593	5.771	1.00	0.00
ATOM	132	OE2	GLU	14	15.968	-28.518	5.018	1.00	0.00
ATOM	133	C	GLU	14	11.584	-26.658	2.619	1.00	0.00
ATOM	134	O	GLU	14	11.259	-27.442	1.730	1.00	0.00
ATOM	135	N	GLU	15	10.719	-26.149	3.498	1.00	0.00
ATOM	136	CA	GLU	15	9.307	-26.469	3.525	1.00	0.00
ATOM	137	CB	GLU	15	8.682	-25.842	4.776	1.00	0.00
ATOM	138	CG	GLU	15	9.344	-26.269	6.094	1.00	0.00
ATOM	139	CD	GLU	15	8.996	-25.274	7.191	1.00	0.00
ATOM	140	OE1	GLU	15	9.746	-24.283	7.309	1.00	0.00

(378)

特開2003-135087

753

754

ATOM	141	OE2	GLU	15	7.970	-25.492	7.870	1.00	0.00
ATOM	142	C	GLU	15	8.609	-25.981	2.245	1.00	0.00
ATOM	143	O	GLU	15	7.973	-26.776	1.560	1.00	0.00
ATOM	144	N	ASP	16	8.706	-24.686	1.916	1.00	0.00
ATOM	145	CA	ASP	16	8.045	-24.110	0.743	1.00	0.00
ATOM	146	CB	ASP	16	8.180	-22.582	0.736	1.00	0.00
ATOM	147	CG	ASP	16	7.375	-21.894	1.831	1.00	0.00
ATOM	148	OD1	ASP	16	6.295	-22.416	2.178	1.00	0.00
ATOM	149	OD2	ASP	16	7.817	-20.811	2.269	1.00	0.00
ATOM	150	C	ASP	16	8.547	-24.669	-0.589	1.00	0.00
ATOM	151	O	ASP	16	7.744	-25.018	-1.453	1.00	0.00
ATOM	152	N	LYS	17	9.869	-24.745	-0.774	1.00	0.00
ATOM	153	CA	LYS	17	10.489	-25.249	-1.992	1.00	0.00
ATOM	154	CB	LYS	17	12.021	-25.040	-1.964	1.00	0.00
ATOM	155	CG	LYS	17	12.657	-25.265	-3.344	1.00	0.00
ATOM	156	CD	LYS	17	14.192	-25.257	-3.278	1.00	0.00
ATOM	157	CE	LYS	17	14.772	-23.861	-3.006	1.00	0.00
ATOM	158	NZ	LYS	17	16.240	-23.896	-2.862	1.00	0.00
ATOM	159	C	LYS	17	10.055	-26.709	-2.166	1.00	0.00
ATOM	160	O	LYS	17	9.664	-27.105	-3.266	1.00	0.00
ATOM	161	N	ASN	18	10.090	-27.498	-1.081	1.00	0.00
ATOM	162	CA	ASN	18	9.647	-28.886	-1.109	1.00	0.00
ATOM	163	CB	ASN	18	9.853	-29.542	0.261	1.00	0.00
ATOM	164	CG	ASN	18	9.233	-30.933	0.326	1.00	0.00
ATOM	165	OD1	ASN	18	9.270	-31.677	-0.648	1.00	0.00
ATOM	166	ND2	ASN	18	8.645	-31.283	1.469	1.00	0.00
ATOM	167	C	ASN	18	8.174	-28.954	-1.516	1.00	0.00
ATOM	168	O	ASN	18	7.833	-29.681	-2.443	1.00	0.00
ATOM	169	N	LEU	19	7.305	-28.198	-0.832	1.00	0.00
ATOM	170	CA	LEU	19	5.871	-28.152	-1.096	1.00	0.00
ATOM	171	CB	LEU	19	5.214	-27.079	-0.213	1.00	0.00
ATOM	172	CG	LEU	19	3.678	-27.071	-0.286	1.00	0.00
ATOM	173	CD1	LEU	19	3.108	-28.419	0.166	1.00	0.00
ATOM	174	CD2	LEU	19	3.142	-25.958	0.622	1.00	0.00
ATOM	175	C	LEU	19	5.602	-27.889	-2.578	1.00	0.00
ATOM	176	O	LEU	19	4.894	-28.654	-3.228	1.00	0.00
ATOM	177	N	ARG	20	6.186	-26.808	-3.106	1.00	0.00
ATOM	178	CA	ARG	20	6.065	-26.402	-4.497	1.00	0.00
ATOM	179	CB	ARG	20	6.957	-25.169	-4.718	1.00	0.00
ATOM	180	CG	ARG	20	6.771	-24.558	-6.109	1.00	0.00
ATOM	181	CD	ARG	20	7.841	-23.495	-6.390	1.00	0.00
ATOM	182	NE	ARG	20	7.788	-23.054	-7.791	1.00	0.00
ATOM	183	CZ	ARG	20	6.850	-22.247	-8.313	1.00	0.00
ATOM	184	NH1	ARG	20	6.771	-22.080	-9.637	1.00	0.00
ATOM	185	NH2	ARG	20	5.973	-21.619	-7.522	1.00	0.00
ATOM	186	C	ARG	20	6.449	-27.572	-5.413	1.00	0.00
ATOM	187	O	ARG	20	5.709	-27.924	-6.335	1.00	0.00
ATOM	188	N	SER	21	7.610	-28.187	-5.160	1.00	0.00
ATOM	189	CA	SER	21	8.088	-29.327	-5.932	1.00	0.00
ATOM	190	CB	SER	21	9.485	-29.735	-5.458	1.00	0.00

(379)

特開2003-135087

755					756				
ATOM	191	OG	SER	21	10.350	-28.620	-5.555	1.00	0.00
ATOM	192	C	SER	21	7.088	-30.482	-5.859	1.00	0.00
ATOM	193	O	SER	21	6.839	-31.142	-6.864	1.00	0.00
ATOM	194	N	GLY	22	6.502	-30.706	-4.679	1.00	0.00
ATOM	195	CA	GLY	22	5.505	-31.734	-4.445	1.00	0.00
ATOM	196	C	GLY	22	4.280	-31.493	-5.318	1.00	0.00
ATOM	197	O	GLY	22	3.784	-32.429	-5.939	1.00	0.00
ATOM	198	N	VAL	23	3.806	-30.242	-5.384	1.00	0.00
ATOM	199	CA	VAL	23	2.661	-29.889	-6.211	1.00	0.00
ATOM	200	CB	VAL	23	2.240	-28.423	-6.006	1.00	0.00
ATOM	201	CG1	VAL	23	1.130	-28.038	-6.994	1.00	0.00
ATOM	202	CG2	VAL	23	1.700	-28.225	-4.584	1.00	0.00
ATOM	203	C	VAL	23	2.961	-30.232	-7.671	1.00	0.00
ATOM	204	O	VAL	23	2.112	-30.813	-8.340	1.00	0.00
ATOM	205	N	ARG	24	4.154	-29.907	-8.186	1.00	0.00
ATOM	206	CA	ARG	24	4.464	-30.270	-9.569	1.00	0.00
ATOM	207	CB	ARG	24	5.775	-29.638	-10.062	1.00	0.00
ATOM	208	CG	ARG	24	5.608	-28.233	-10.661	1.00	0.00
ATOM	209	CD	ARG	24	5.539	-27.123	-9.608	1.00	0.00
ATOM	210	NE	ARG	24	6.747	-27.100	-8.775	1.00	0.00
ATOM	211	CZ	ARG	24	7.951	-26.621	-9.135	1.00	0.00
ATOM	212	NH1	ARG	24	8.128	-26.064	-10.341	1.00	0.00
ATOM	213	NH2	ARG	24	8.983	-26.697	-8.281	1.00	0.00
ATOM	214	C	ARG	24	4.547	-31.795	-9.734	1.00	0.00
ATOM	215	O	ARG	24	4.048	-32.337	-10.717	1.00	0.00
ATOM	216	N	LYS	25	5.201	-32.482	-8.793	1.00	0.00
ATOM	217	CA	LYS	25	5.422	-33.921	-8.839	1.00	0.00
ATOM	218	CB	LYS	25	6.435	-34.316	-7.754	1.00	0.00
ATOM	219	CG	LYS	25	6.922	-35.771	-7.872	1.00	0.00
ATOM	220	CD	LYS	25	7.632	-36.134	-9.185	1.00	0.00
ATOM	221	CE	LYS	25	8.839	-35.232	-9.473	1.00	0.00
ATOM	222	NZ	LYS	25	9.589	-35.694	-10.656	1.00	0.00
ATOM	223	C	LYS	25	4.151	-34.775	-8.766	1.00	0.00
ATOM	224	O	LYS	25	4.062	-35.765	-9.491	1.00	0.00
ATOM	225	N	TYR	26	3.199	-34.435	-7.888	1.00	0.00
ATOM	226	CA	TYR	26	1.981	-35.219	-7.679	1.00	0.00
ATOM	227	CB	TYR	26	2.058	-35.853	-6.283	1.00	0.00
ATOM	228	CG	TYR	26	3.344	-36.614	-6.025	1.00	0.00
ATOM	229	CD1	TYR	26	3.527	-37.895	-6.578	1.00	0.00
ATOM	230	CE1	TYR	26	4.721	-38.599	-6.349	1.00	0.00
ATOM	231	CZ	TYR	26	5.737	-38.023	-5.567	1.00	0.00
ATOM	232	OH	TYR	26	6.900	-38.698	-5.343	1.00	0.00
ATOM	233	CE2	TYR	26	5.557	-36.743	-5.018	1.00	0.00
ATOM	234	CD2	TYR	26	4.363	-36.039	-5.244	1.00	0.00
ATOM	235	C	TYR	26	0.684	-34.421	-7.832	1.00	0.00
ATOM	236	O	TYR	26	-0.379	-34.927	-7.479	1.00	0.00
ATOM	237	N	GLY	27	0.739	-33.190	-8.347	1.00	0.00
ATOM	238	CA	GLY	27	-0.444	-32.355	-8.505	1.00	0.00
ATOM	239	C	GLY	27	-0.862	-31.766	-7.157	1.00	0.00
ATOM	240	O	GLY	27	-0.218	-32.013	-6.139	1.00	0.00

(380)

特開2003-135087

757				758				
ATOM	241	N	GLU	28	-1.950	-30.991	-7.149	1.00 0.00
ATOM	242	CA	GLU	28	-2.495	-30.368	-5.948	1.00 0.00
ATOM	243	CB	GLU	28	-3.078	-28.996	-6.336	1.00 0.00
ATOM	244	CG	GLU	28	-3.329	-28.087	-5.125	1.00 0.00
ATOM	245	CD	GLU	28	-3.729	-26.664	-5.502	1.00 0.00
ATOM	246	OE1	GLU	28	-3.180	-26.121	-6.489	1.00 0.00
ATOM	247	OE2	GLU	28	-4.541	-26.079	-4.753	1.00 0.00
ATOM	248	C	GLU	28	-3.535	-31.308	-5.314	1.00 0.00
ATOM	249	O	GLU	28	-3.979	-32.266	-5.947	1.00 0.00
ATOM	250	N	GLY	29	-3.927	-31.037	-4.065	1.00 0.00
ATOM	251	CA	GLY	29	-4.933	-31.803	-3.341	1.00 0.00
ATOM	252	C	GLY	29	-4.565	-33.264	-3.097	1.00 0.00
ATOM	253	O	GLY	29	-5.320	-34.167	-3.451	1.00 0.00
ATOM	254	N	ASN	30	-3.409	-33.494	-2.470	1.00 0.00
ATOM	255	CA	ASN	30	-2.908	-34.819	-2.112	1.00 0.00
ATOM	256	CB	ASN	30	-2.549	-35.660	-3.347	1.00 0.00
ATOM	257	CG	ASN	30	-1.451	-35.045	-4.207	1.00 0.00
ATOM	258	OD1	ASN	30	-0.304	-35.481	-4.161	1.00 0.00
ATOM	259	ND2	ASN	30	-1.800	-34.054	-5.021	1.00 0.00
ATOM	260	C	ASN	30	-1.739	-34.642	-1.144	1.00 0.00
ATOM	261	O	ASN	30	-0.659	-35.210	-1.312	1.00 0.00
ATOM	262	N	TRP	31	-1.974	-33.829	-0.113	1.00 0.00
ATOM	263	CA	TRP	31	-0.982	-33.513	0.901	1.00 0.00
ATOM	264	CB	TRP	31	-1.438	-32.326	1.757	1.00 0.00
ATOM	265	CG	TRP	31	-2.139	-31.291	0.934	1.00 0.00
ATOM	266	CD1	TRP	31	-3.470	-31.057	0.905	1.00 0.00
ATOM	267	NE1	TRP	31	-3.745	-30.051	0.001	1.00 0.00
ATOM	268	CE2	TRP	31	-2.592	-29.585	-0.595	1.00 0.00
ATOM	269	CZ2	TRP	31	-2.341	-28.598	-1.559	1.00 0.00
ATOM	270	CH2	TRP	31	-1.018	-28.368	-1.967	1.00 0.00
ATOM	271	CZ3	TRP	31	0.031	-29.119	-1.416	1.00 0.00
ATOM	272	CE3	TRP	31	-0.231	-30.106	-0.452	1.00 0.00
ATOM	273	CD2	TRP	31	-1.548	-30.363	-0.016	1.00 0.00
ATOM	274	C	TRP	31	-0.551	-34.764	1.660	1.00 0.00
ATOM	275	O	TRP	31	0.584	-34.814	2.124	1.00 0.00
ATOM	276	N	SER	32	-1.413	-35.789	1.749	1.00 0.00
ATOM	277	CA	SER	32	-1.047	-37.051	2.383	1.00 0.00
ATOM	278	CB	SER	32	-2.203	-38.058	2.327	1.00 0.00
ATOM	279	OG	SER	32	-3.400	-37.505	2.811	1.00 0.00
ATOM	280	C	SER	32	0.148	-37.652	1.638	1.00 0.00
ATOM	281	O	SER	32	1.142	-38.044	2.248	1.00 0.00
ATOM	282	N	LYS	33	0.033	-37.721	0.306	1.00 0.00
ATOM	283	CA	LYS	33	1.060	-38.269	-0.562	1.00 0.00
ATOM	284	CB	LYS	33	0.581	-38.330	-2.020	1.00 0.00
ATOM	285	CG	LYS	33	-0.704	-39.147	-2.190	1.00 0.00
ATOM	286	CD	LYS	33	-1.015	-39.310	-3.685	1.00 0.00
ATOM	287	CE	LYS	33	-2.356	-40.015	-3.932	1.00 0.00
ATOM	288	NZ	LYS	33	-3.511	-39.190	-3.526	1.00 0.00
ATOM	289	C	LYS	33	2.327	-37.431	-0.444	1.00 0.00
ATOM	290	O	LYS	33	3.386	-37.968	-0.135	1.00 0.00

(381)

特開2003-135087

759

760

ATOM	291	N	ILE	34	2.221	-36.119	-0.687	1.00	0.00
ATOM	292	CA	ILE	34	3.351	-35.198	-0.617	1.00	0.00
ATOM	293	CB	ILE	34	2.859	-33.761	-0.889	1.00	0.00
ATOM	294	CG2	ILE	34	3.963	-32.721	-0.645	1.00	0.00
ATOM	295	CG1	ILE	34	2.364	-33.655	-2.347	1.00	0.00
ATOM	296	CD1	ILE	34	1.544	-32.392	-2.627	1.00	0.00
ATOM	297	C	ILE	34	4.094	-35.368	0.718	1.00	0.00
ATOM	298	O	ILE	34	5.314	-35.531	0.734	1.00	0.00
ATOM	299	N	LEU	35	3.363	-35.354	1.837	1.00	0.00
ATOM	300	CA	LEU	35	3.924	-35.525	3.172	1.00	0.00
ATOM	301	CB	LEU	35	2.829	-35.299	4.227	1.00	0.00
ATOM	302	CG	LEU	35	3.341	-35.406	5.676	1.00	0.00
ATOM	303	CD1	LEU	35	2.623	-34.384	6.566	1.00	0.00
ATOM	304	CD2	LEU	35	3.102	-36.807	6.260	1.00	0.00
ATOM	305	C	LEU	35	4.608	-36.886	3.316	1.00	0.00
ATOM	306	O	LEU	35	5.665	-36.965	3.933	1.00	0.00
ATOM	307	N	LEU	36	4.021	-37.952	2.758	1.00	0.00
ATOM	308	CA	LEU	36	4.588	-39.294	2.831	1.00	0.00
ATOM	309	CB	LEU	36	3.551	-40.303	2.304	1.00	0.00
ATOM	310	CG	LEU	36	3.927	-41.797	2.343	1.00	0.00
ATOM	311	CD1	LEU	36	4.859	-42.225	1.202	1.00	0.00
ATOM	312	CD2	LEU	36	4.491	-42.229	3.700	1.00	0.00
ATOM	313	C	LEU	36	5.917	-39.343	2.074	1.00	0.00
ATOM	314	O	LEU	36	6.914	-39.834	2.599	1.00	0.00
ATOM	315	N	HIS	37	5.929	-38.839	0.836	1.00	0.00
ATOM	316	CA	HIS	37	7.104	-38.818	-0.023	1.00	0.00
ATOM	317	CB	HIS	37	6.722	-38.273	-1.406	1.00	0.00
ATOM	318	CG	HIS	37	5.704	-39.112	-2.135	1.00	0.00
ATOM	319	ND1	HIS	37	5.886	-40.467	-2.371	1.00	0.00
ATOM	320	CE1	HIS	37	4.803	-40.905	-3.036	1.00	0.00
ATOM	321	NE2	HIS	37	3.908	-39.941	-3.262	1.00	0.00
ATOM	322	CD2	HIS	37	4.485	-38.811	-2.690	1.00	0.00
ATOM	323	C	HIS	37	8.240	-37.988	0.576	1.00	0.00
ATOM	324	O	HIS	37	9.393	-38.417	0.539	1.00	0.00
ATOM	325	N	TYR	38	7.920	-36.802	1.103	1.00	0.00
ATOM	326	CA	TYR	38	8.890	-35.878	1.676	1.00	0.00
ATOM	327	CB	TYR	38	8.744	-34.533	0.957	1.00	0.00
ATOM	328	CG	TYR	38	8.737	-34.627	-0.557	1.00	0.00
ATOM	329	CD1	TYR	38	7.565	-34.321	-1.270	1.00	0.00
ATOM	330	CE1	TYR	38	7.548	-34.403	-2.670	1.00	0.00
ATOM	331	CZ	TYR	38	8.705	-34.789	-3.366	1.00	0.00
ATOM	332	OH	TYR	38	8.690	-34.864	-4.729	1.00	0.00
ATOM	333	CE2	TYR	38	9.879	-35.096	-2.658	1.00	0.00
ATOM	334	CD2	TYR	38	9.896	-35.015	-1.253	1.00	0.00
ATOM	335	C	TYR	38	8.726	-35.781	3.195	1.00	0.00
ATOM	336	O	TYR	38	8.528	-36.794	3.862	1.00	0.00
ATOM	337	N	LYS	39	8.824	-34.564	3.739	1.00	0.00
ATOM	338	CA	LYS	39	8.700	-34.255	5.154	1.00	0.00
ATOM	339	CB	LYS	39	9.899	-34.809	5.942	1.00	0.00
ATOM	340	CG	LYS	39	11.247	-34.304	5.401	1.00	0.00

	761						762		
ATOM	341	CD	LYS	39	12.420	-34.687	6.314	1.00	0.00
ATOM	342	CE	LYS	39	12.606	-36.206	6.422	1.00	0.00
ATOM	343	NZ	LYS	39	13.823	-36.551	7.180	1.00	0.00
ATOM	344	C	LYS	39	8.576	-32.740	5.322	1.00	0.00
ATOM	345	O	LYS	39	8.875	-31.988	4.394	1.00	0.00
ATOM	346	N	PHE	40	8.142	-32.306	6.510	1.00	0.00
ATOM	347	CA	PHE	40	7.965	-30.909	6.884	1.00	0.00
ATOM	348	CB	PHE	40	6.542	-30.445	6.539	1.00	0.00
ATOM	349	CG	PHE	40	6.211	-30.513	5.060	1.00	0.00
ATOM	350	CD1	PHE	40	5.544	-31.633	4.523	1.00	0.00
ATOM	351	CE1	PHE	40	5.252	-31.685	3.149	1.00	0.00
ATOM	352	CZ	PHE	40	5.622	-30.621	2.309	1.00	0.00
ATOM	353	CE2	PHE	40	6.286	-29.507	2.845	1.00	0.00
ATOM	354	CD2	PHE	40	6.581	-29.450	4.216	1.00	0.00
ATOM	355	C	PHE	40	8.242	-30.778	8.384	1.00	0.00
ATOM	356	O	PHE	40	8.367	-31.789	9.072	1.00	0.00
ATOM	357	N	ASN	41	8.334	-29.537	8.882	1.00	0.00
ATOM	358	CA	ASN	41	8.600	-29.225	10.284	1.00	0.00
ATOM	359	CB	ASN	41	8.540	-27.700	10.465	1.00	0.00
ATOM	360	CG	ASN	41	8.810	-27.259	11.902	1.00	0.00
ATOM	361	OD1	ASN	41	7.967	-27.437	12.777	1.00	0.00
ATOM	362	ND2	ASN	41	9.970	-26.651	12.149	1.00	0.00
ATOM	363	C	ASN	41	7.630	-29.970	11.213	1.00	0.00
ATOM	364	O	ASN	41	8.034	-30.883	11.929	1.00	0.00
ATOM	365	N	ASN	42	6.352	-29.578	11.187	1.00	0.00
ATOM	366	CA	ASN	42	5.264	-30.154	11.969	1.00	0.00
ATOM	367	CB	ASN	42	5.426	-29.802	13.460	1.00	0.00
ATOM	368	CG	ASN	42	4.477	-30.600	14.355	1.00	0.00
ATOM	369	OD1	ASN	42	4.900	-31.523	15.044	1.00	0.00
ATOM	370	ND2	ASN	42	3.193	-30.248	14.365	1.00	0.00
ATOM	371	C	ASN	42	3.974	-29.600	11.361	1.00	0.00
ATOM	372	O	ASN	42	3.252	-28.829	11.992	1.00	0.00
ATOM	373	N	ARG	43	3.717	-29.963	10.100	1.00	0.00
ATOM	374	CA	ARG	43	2.578	-29.489	9.324	1.00	0.00
ATOM	375	CB	ARG	43	3.058	-29.047	7.934	1.00	0.00
ATOM	376	CG	ARG	43	3.660	-27.638	7.890	1.00	0.00
ATOM	377	CD	ARG	43	4.795	-27.407	8.884	1.00	0.00
ATOM	378	NE	ARG	43	5.480	-26.134	8.646	1.00	0.00
ATOM	379	CZ	ARG	43	5.134	-24.938	9.148	1.00	0.00
ATOM	380	NH1	ARG	43	3.955	-24.772	9.763	1.00	0.00
ATOM	381	NH2	ARG	43	6.002	-23.929	9.031	1.00	0.00
ATOM	382	C	ARG	43	1.511	-30.569	9.166	1.00	0.00
ATOM	383	O	ARG	43	1.815	-31.759	9.130	1.00	0.00
ATOM	384	N	THR	44	0.261	-30.112	9.050	1.00	0.00
ATOM	385	CA	THR	44	-0.936	-30.908	8.854	1.00	0.00
ATOM	386	CB	THR	44	-1.995	-30.450	9.871	1.00	0.00
ATOM	387	CG2	THR	44	-1.493	-30.577	11.313	1.00	0.00
ATOM	388	OG1	THR	44	-2.345	-29.102	9.604	1.00	0.00
ATOM	389	C	THR	44	-1.464	-30.648	7.443	1.00	0.00
ATOM	390	O	THR	44	-0.961	-29.772	6.738	1.00	0.00

(383)

特開2003-135087

763

764

ATOM	391	N	SER	45	-2.508	-31.381	7.042	1.00	0.00
ATOM	392	CA	SER	45	-3.157	-31.194	5.752	1.00	0.00
ATOM	393	CB	SER	45	-4.316	-32.185	5.635	1.00	0.00
ATOM	394	OG	SER	45	-5.023	-31.969	4.435	1.00	0.00
ATOM	395	C	SER	45	-3.647	-29.744	5.641	1.00	0.00
ATOM	396	O	SER	45	-3.479	-29.105	4.603	1.00	0.00
ATOM	397	N	VAL	46	-4.233	-29.224	6.731	1.00	0.00
ATOM	398	CA	VAL	46	-4.727	-27.857	6.818	1.00	0.00
ATOM	399	CB	VAL	46	-5.328	-27.585	8.211	1.00	0.00
ATOM	400	CG1	VAL	46	-5.809	-26.134	8.331	1.00	0.00
ATOM	401	CG2	VAL	46	-6.511	-28.512	8.513	1.00	0.00
ATOM	402	C	VAL	46	-3.582	-26.888	6.521	1.00	0.00
ATOM	403	O	VAL	46	-3.715	-26.024	5.656	1.00	0.00
ATOM	404	N	MET	47	-2.461	-27.031	7.241	1.00	0.00
ATOM	405	CA	MET	47	-1.302	-26.168	7.055	1.00	0.00
ATOM	406	CB	MET	47	-0.168	-26.590	7.997	1.00	0.00
ATOM	407	CG	MET	47	-0.477	-26.351	9.475	1.00	0.00
ATOM	408	SD	MET	47	-0.371	-24.622	9.989	1.00	0.00
ATOM	409	CE	MET	47	-0.555	-24.864	11.770	1.00	0.00
ATOM	410	C	MET	47	-0.809	-26.214	5.608	1.00	0.00
ATOM	411	O	MET	47	-0.629	-25.171	4.987	1.00	0.00
ATOM	412	N	LEU	48	-0.582	-27.419	5.078	1.00	0.00
ATOM	413	CA	LEU	48	-0.088	-27.639	3.725	1.00	0.00
ATOM	414	CB	LEU	48	0.063	-29.148	3.468	1.00	0.00
ATOM	415	CG	LEU	48	1.258	-29.707	4.259	1.00	0.00
ATOM	416	CD1	LEU	48	1.106	-31.195	4.585	1.00	0.00
ATOM	417	CD2	LEU	48	2.561	-29.522	3.480	1.00	0.00
ATOM	418	C	LEU	48	-0.974	-26.969	2.677	1.00	0.00
ATOM	419	O	LEU	48	-0.486	-26.159	1.886	1.00	0.00
ATOM	420	N	LYS	49	-2.269	-27.302	2.666	1.00	0.00
ATOM	421	CA	LYS	49	-3.189	-26.733	1.695	1.00	0.00
ATOM	422	CB	LYS	49	-4.561	-27.438	1.738	1.00	0.00
ATOM	423	CG	LYS	49	-5.590	-26.899	2.741	1.00	0.00
ATOM	424	CD	LYS	49	-6.375	-25.693	2.197	1.00	0.00
ATOM	425	CE	LYS	49	-7.301	-25.125	3.273	1.00	0.00
ATOM	426	NZ	LYS	49	-7.943	-23.876	2.831	1.00	0.00
ATOM	427	C	LYS	49	-3.274	-25.214	1.826	1.00	0.00
ATOM	428	O	LYS	49	-3.244	-24.515	0.816	1.00	0.00
ATOM	429	N	ASP	50	-3.405	-24.692	3.054	1.00	0.00
ATOM	430	CA	ASP	50	-3.546	-23.260	3.261	1.00	0.00
ATOM	431	CB	ASP	50	-3.954	-22.943	4.698	1.00	0.00
ATOM	432	CG	ASP	50	-4.269	-21.459	4.818	1.00	0.00
ATOM	433	OD1	ASP	50	-3.541	-20.780	5.572	1.00	0.00
ATOM	434	OD2	ASP	50	-5.233	-21.025	4.148	1.00	0.00
ATOM	435	C	ASP	50	-2.292	-22.495	2.850	1.00	0.00
ATOM	436	O	ASP	50	-2.398	-21.434	2.236	1.00	0.00
ATOM	437	N	ARG	51	-1.106	-23.027	3.166	1.00	0.00
ATOM	438	CA	ARG	51	0.134	-22.377	2.780	1.00	0.00
ATOM	439	CB	ARG	51	1.355	-23.108	3.354	1.00	0.00
ATOM	440	CG	ARG	51	2.615	-22.234	3.477	1.00	0.00

765					766				
ATOM	441	CD	ARG	51	2.891	-21.269	2.324	1.00	0.00
ATOM	442	NE	ARG	51	4.219	-20.649	2.457	1.00	0.00
ATOM	443	CZ	ARG	51	4.513	-19.340	2.352	1.00	0.00
ATOM	444	NH1	ARG	51	3.547	-18.413	2.332	1.00	0.00
ATOM	445	NH2	ARG	51	5.791	-18.955	2.267	1.00	0.00
ATOM	446	C	ARG	51	0.174	-22.332	1.253	1.00	0.00
ATOM	447	O	ARG	51	0.381	-21.265	0.681	1.00	0.00
ATOM	448	N	TRP	52	-0.041	-23.469	0.576	1.00	0.00
ATOM	449	CA	TRP	52	-0.038	-23.462	-0.877	1.00	0.00
ATOM	450	CB	TRP	52	-0.248	-24.860	-1.457	1.00	0.00
ATOM	451	CG	TRP	52	-0.274	-24.875	-2.956	1.00	0.00
ATOM	452	CD1	TRP	52	-1.305	-25.301	-3.715	1.00	0.00
ATOM	453	NE1	TRP	52	-0.997	-25.170	-5.052	1.00	0.00
ATOM	454	CE2	TRP	52	0.264	-24.637	-5.225	1.00	0.00
ATOM	455	CZ2	TRP	52	1.021	-24.309	-6.360	1.00	0.00
ATOM	456	CH2	TRP	52	2.306	-23.773	-6.189	1.00	0.00
ATOM	457	CZ3	TRP	52	2.813	-23.564	-4.900	1.00	0.00
ATOM	458	CE3	TRP	52	2.048	-23.894	-3.768	1.00	0.00
ATOM	459	CD2	TRP	52	0.753	-24.440	-3.898	1.00	0.00
ATOM	460	C	TRP	52	-1.084	-22.485	-1.415	1.00	0.00
ATOM	461	O	TRP	52	-0.822	-21.793	-2.390	1.00	0.00
ATOM	462	N	ARG	53	-2.261	-22.413	-0.788	1.00	0.00
ATOM	463	CA	ARG	53	-3.320	-21.510	-1.204	1.00	0.00
ATOM	464	CB	ARG	53	-4.562	-21.734	-0.333	1.00	0.00
ATOM	465	CG	ARG	53	-5.736	-20.846	-0.757	1.00	0.00
ATOM	466	CD	ARG	53	-6.994	-21.213	0.035	1.00	0.00
ATOM	467	NE	ARG	53	-6.885	-20.865	1.461	1.00	0.00
ATOM	468	CZ	ARG	53	-7.930	-20.778	2.302	1.00	0.00
ATOM	469	NH1	ARG	53	-7.742	-20.342	3.551	1.00	0.00
ATOM	470	NH2	ARG	53	-9.149	-21.179	1.920	1.00	0.00
ATOM	471	C	ARG	53	-2.842	-20.056	-1.158	1.00	0.00
ATOM	472	O	ARG	53	-2.896	-19.364	-2.171	1.00	0.00
ATOM	473	N	THR	54	-2.383	-19.583	0.005	1.00	0.00
ATOM	474	CA	THR	54	-1.934	-18.205	0.157	1.00	0.00
ATOM	475	CB	THR	54	-1.710	-17.869	1.648	1.00	0.00
ATOM	476	CG2	THR	54	-0.339	-18.247	2.212	1.00	0.00
ATOM	477	OG1	THR	54	-1.909	-16.487	1.850	1.00	0.00
ATOM	478	C	THR	54	-0.735	-17.901	-0.753	1.00	0.00
ATOM	479	O	THR	54	-0.719	-16.890	-1.453	1.00	0.00
ATOM	480	N	MET	55	0.267	-18.787	-0.750	1.00	0.00
ATOM	481	CA	MET	55	1.484	-18.655	-1.535	1.00	0.00
ATOM	482	CB	MET	55	2.436	-19.798	-1.149	1.00	0.00
ATOM	483	CG	MET	55	3.828	-19.626	-1.759	1.00	0.00
ATOM	484	SD	MET	55	5.160	-20.594	-1.002	1.00	0.00
ATOM	485	CE	MET	55	4.667	-22.251	-1.524	1.00	0.00
ATOM	486	C	MET	55	1.189	-18.590	-3.037	1.00	0.00
ATOM	487	O	MET	55	1.654	-17.677	-3.720	1.00	0.00
ATOM	488	N	LYS	56	0.410	-19.543	-3.558	1.00	0.00
ATOM	489	CA	LYS	56	0.055	-19.584	-4.969	1.00	0.00
ATOM	490	CB	LYS	56	-0.602	-20.922	-5.350	1.00	0.00

(385)

特開2003-135087

767					768				
ATOM	491	CG	LYS	56	-2.130	-20.974	-5.204	1.00	0.00
ATOM	492	CD	LYS	56	-2.638	-22.393	-5.477	1.00	0.00
ATOM	493	CE	LYS	56	-4.138	-22.408	-5.791	1.00	0.00
ATOM	494	NZ	LYS	56	-4.630	-23.775	-6.050	1.00	0.00
ATOM	495	C	LYS	56	-0.768	-18.356	-5.354	1.00	0.00
ATOM	496	O	LYS	56	-0.542	-17.773	-6.413	1.00	0.00
ATOM	497	N	LYS	57	-1.708	-17.946	-4.491	1.00	0.00
ATOM	498	CA	LYS	57	-2.525	-16.767	-4.739	1.00	0.00
ATOM	499	CB	LYS	57	-3.622	-16.626	-3.674	1.00	0.00
ATOM	500	CG	LYS	57	-4.819	-17.563	-3.902	1.00	0.00
ATOM	501	CD	LYS	57	-5.622	-17.300	-5.188	1.00	0.00
ATOM	502	CE	LYS	57	-6.034	-15.830	-5.349	1.00	0.00
ATOM	503	NZ	LYS	57	-6.934	-15.637	-6.501	1.00	0.00
ATOM	504	C	LYS	57	-1.666	-15.503	-4.803	1.00	0.00
ATOM	505	O	LYS	57	-2.086	-14.537	-5.438	1.00	0.00
ATOM	506	N	LEU	58	-0.484	-15.500	-4.168	1.00	0.00
ATOM	507	CA	LEU	58	0.410	-14.354	-4.184	1.00	0.00
ATOM	508	CB	LEU	58	1.353	-14.387	-2.964	1.00	0.00
ATOM	509	CG	LEU	58	2.058	-13.063	-2.605	1.00	0.00
ATOM	510	CD1	LEU	58	3.062	-12.583	-3.658	1.00	0.00
ATOM	511	CD2	LEU	58	1.064	-11.939	-2.287	1.00	0.00
ATOM	512	C	LEU	58	1.079	-14.254	-5.552	1.00	0.00
ATOM	513	O	LEU	58	0.549	-13.607	-6.453	1.00	0.00
ATOM	514	N	LYS	59	2.236	-14.893	-5.717	1.00	0.00
ATOM	515	CA	LYS	59	2.988	-14.905	-6.962	1.00	0.00
ATOM	516	CB	LYS	59	3.597	-13.515	-7.227	1.00	0.00
ATOM	517	CG	LYS	59	4.079	-13.328	-8.672	1.00	0.00
ATOM	518	CD	LYS	59	2.922	-13.396	-9.684	1.00	0.00
ATOM	519	CE	LYS	59	2.998	-14.623	-10.603	1.00	0.00
ATOM	520	NZ	LYS	59	4.231	-14.622	-11.411	1.00	0.00
ATOM	521	C	LYS	59	4.040	-16.001	-6.838	1.00	0.00
ATOM	522	O	LYS	59	5.206	-15.809	-7.178	1.00	0.00
ATOM	523	N	LEU	60	3.613	-17.154	-6.315	1.00	0.00
ATOM	524	CA	LEU	60	4.483	-18.302	-6.104	1.00	0.00
ATOM	525	CB	LEU	60	5.051	-18.304	-4.675	1.00	0.00
ATOM	526	CG	LEU	60	6.147	-17.256	-4.408	1.00	0.00
ATOM	527	CD1	LEU	60	5.575	-16.004	-3.727	1.00	0.00
ATOM	528	CD2	LEU	60	7.224	-17.849	-3.492	1.00	0.00
ATOM	529	C	LEU	60	3.644	-19.536	-6.404	1.00	0.00
ATOM	530	O	LEU	60	3.438	-20.392	-5.545	1.00	0.00
ATOM	531	N	ILE	61	3.154	-19.601	-7.643	1.00	0.00
ATOM	532	CA	ILE	61	2.308	-20.667	-8.146	1.00	0.00
ATOM	533	CB	ILE	61	1.033	-20.048	-8.744	1.00	0.00
ATOM	534	CG2	ILE	61	1.309	-19.093	-9.912	1.00	0.00
ATOM	535	CG1	ILE	61	0.035	-21.136	-9.137	1.00	0.00
ATOM	536	CD1	ILE	61	-1.408	-20.634	-9.155	1.00	0.00
ATOM	537	C	ILE	61	3.106	-21.555	-9.100	1.00	0.00
ATOM	538	O	ILE	61	4.194	-21.172	-9.526	1.00	0.00
ATOM	539	N	SER	62	2.581	-22.751	-9.404	1.00	0.00
ATOM	540	CA	SER	62	3.188	-23.769	-10.256	1.00	0.00

(386)

特開2003-135087

769					770				
ATOM	541	CB	SER	62	2.120	-24.766	-10.722	1.00	0.00
ATOM	542	OG	SER	62	1.067	-24.108	-11.395	1.00	0.00
ATOM	543	C	SER	62	3.967	-23.178	-11.432	1.00	0.00
ATOM	544	O	SER	62	5.096	-23.597	-11.687	1.00	0.00
ATOM	545	N	SER	63	3.364	-22.202	-12.119	1.00	0.00
ATOM	546	CA	SER	63	3.945	-21.505	-13.250	1.00	0.00
ATOM	547	CB	SER	63	3.028	-20.350	-13.662	1.00	0.00
ATOM	548	OG	SER	63	1.706	-20.782	-13.891	1.00	0.00
ATOM	549	C	SER	63	5.343	-20.958	-12.953	1.00	0.00
ATOM	550	O	SER	63	6.311	-21.413	-13.561	1.00	0.00
ATOM	551	N	ASP	64	5.455	-19.969	-12.052	1.00	0.00
ATOM	552	CA	ASP	64	6.720	-19.310	-11.735	1.00	0.00
ATOM	553	CB	ASP	64	6.683	-18.654	-10.339	1.00	0.00
ATOM	554	CG	ASP	64	5.502	-17.715	-10.104	1.00	0.00
ATOM	555	OD1	ASP	64	4.415	-18.249	-9.792	1.00	0.00
ATOM	556	OD2	ASP	64	5.701	-16.486	-10.208	1.00	0.00
ATOM	557	C	ASP	64	7.050	-18.326	-12.868	1.00	0.00
ATOM	558	O	ASP	64	7.086	-17.112	-12.680	1.00	0.00
ATOM	559	N	SER	65	7.292	-18.871	-14.066	1.00	0.00
ATOM	560	CA	SER	65	7.625	-18.141	-15.279	1.00	0.00
ATOM	561	CB	SER	65	8.274	-19.109	-16.276	1.00	0.00
ATOM	562	OG	SER	65	9.385	-19.751	-15.681	1.00	0.00
ATOM	563	C	SER	65	6.394	-17.464	-15.890	1.00	0.00
ATOM	564	O	SER	65	5.999	-17.784	-17.010	1.00	0.00
ATOM	565	N	GLU	66	5.803	-16.515	-15.160	1.00	0.00
ATOM	566	CA	GLU	66	4.656	-15.722	-15.582	1.00	0.00
ATOM	567	CB	GLU	66	3.331	-16.473	-15.351	1.00	0.00
ATOM	568	CG	GLU	66	2.923	-16.572	-13.875	1.00	0.00
ATOM	569	CD	GLU	66	1.643	-17.373	-13.648	1.00	0.00
ATOM	570	OE1	GLU	66	1.077	-17.216	-12.546	1.00	0.00
ATOM	571	OE2	GLU	66	1.266	-18.157	-14.548	1.00	0.00
ATOM	572	C	GLU	66	4.748	-14.379	-14.856	1.00	0.00
ATOM	573	O	GLU	66	5.523	-14.259	-13.906	1.00	0.00
ATOM	574	N	ASP	67	3.979	-13.379	-15.301	1.00	0.00
ATOM	575	CA	ASP	67	3.982	-12.049	-14.704	1.00	0.00
ATOM	576	CB	ASP	67	3.152	-11.096	-15.573	1.00	0.00
ATOM	577	CG	ASP	67	3.255	-9.653	-15.090	1.00	0.00
ATOM	578	OD1	ASP	67	2.234	-9.140	-14.582	1.00	0.00
ATOM	579	OD2	ASP	67	4.351	-9.075	-15.263	1.00	0.00
ATOM	580	C	ASP	67	3.462	-12.104	-13.265	1.00	0.00
ATOM	581	OT1	ASP	67	2.386	-12.721	-13.106	1.00	0.00
ATOM	582	OT2	ASP	67	4.338	-12.034	-12.374	1.00	0.00
ATOM	583	O5'	GUA	68	-7.104	-40.147	11.857	1.00	0.00
ATOM	584	C5'	GUA	68	-6.722	-40.799	10.664	1.00	0.00
ATOM	585	C4'	GUA	68	-7.061	-39.934	9.449	1.00	0.00
ATOM	586	O4'	GUA	68	-8.429	-39.569	9.441	1.00	0.00
ATOM	587	C1'	GUA	68	-8.577	-38.552	8.474	1.00	0.00
ATOM	588	N9	GUA	68	-9.803	-37.753	8.668	1.00	0.00
ATOM	589	C8	GUA	68	-10.231	-37.131	9.810	1.00	0.00
ATOM	590	N7	GUA	68	-11.367	-36.504	9.684	1.00	0.00

(387)

特開2003-135087

771

772

ATOM	591	C5	GUA	68	-11.703	-36.692	8.346	1.00	0.00
ATOM	592	C6	GUA	68	-12.828	-36.227	7.600	1.00	0.00
ATOM	593	O6	GUA	68	-13.817	-35.625	8.013	1.00	0.00
ATOM	594	N1	GUA	68	-12.727	-36.526	6.246	1.00	0.00
ATOM	595	C2	GUA	68	-11.688	-37.233	5.676	1.00	0.00
ATOM	596	N2	GUA	68	-11.714	-37.427	4.356	1.00	0.00
ATOM	597	N3	GUA	68	-10.655	-37.713	6.380	1.00	0.00
ATOM	598	C4	GUA	68	-10.719	-37.408	7.704	1.00	0.00
ATOM	599	C3'	GUA	68	-6.318	-38.591	9.417	1.00	0.00
ATOM	600	C2'	GUA	68	-7.344	-37.703	8.712	1.00	0.00
ATOM	601	O3'	GUA	68	-5.096	-38.722	8.706	1.00	0.00
ATOM	602	P	THY	69	-4.146	-37.460	8.328	1.00	0.00
ATOM	603	OP1	THY	69	-2.849	-37.991	7.855	1.00	0.00
ATOM	604	OP2	THY	69	-4.182	-36.494	9.449	1.00	0.00
ATOM	605	O5'	THY	69	-4.898	-36.790	7.065	1.00	0.00
ATOM	606	C5'	THY	69	-5.277	-37.573	5.947	1.00	0.00
ATOM	607	C4'	THY	69	-6.329	-36.861	5.085	1.00	0.00
ATOM	608	O4'	THY	69	-7.515	-36.474	5.739	1.00	0.00
ATOM	609	C1'	THY	69	-8.077	-35.368	5.072	1.00	0.00
ATOM	610	N1	THY	69	-9.042	-34.692	5.978	1.00	0.00
ATOM	611	C6	THY	69	-8.741	-34.565	7.313	1.00	0.00
ATOM	612	C5	THY	69	-9.593	-33.957	8.174	1.00	0.00
ATOM	613	C7	THY	69	-9.136	-33.838	9.616	1.00	0.00
ATOM	614	C4	THY	69	-10.870	-33.438	7.729	1.00	0.00
ATOM	615	O4	THY	69	-11.698	-32.872	8.437	1.00	0.00
ATOM	616	N3	THY	69	-11.115	-33.628	6.380	1.00	0.00
ATOM	617	C2	THY	69	-10.250	-34.216	5.467	1.00	0.00
ATOM	618	O2	THY	69	-10.558	-34.294	4.281	1.00	0.00
ATOM	619	C3'	THY	69	-5.794	-35.589	4.422	1.00	0.00
ATOM	620	C2'	THY	69	-6.824	-34.536	4.828	1.00	0.00
ATOM	621	O3'	THY	69	-5.714	-35.742	3.016	1.00	0.00
ATOM	622	P	THY	70	-4.864	-34.715	2.107	1.00	0.00
ATOM	623	OP1	THY	70	-3.963	-33.962	2.998	1.00	0.00
ATOM	624	OP2	THY	70	-4.271	-35.489	0.989	1.00	0.00
ATOM	625	O5'	THY	70	-5.953	-33.668	1.556	1.00	0.00
ATOM	626	C5'	THY	70	-6.983	-34.031	0.660	1.00	0.00
ATOM	627	C4'	THY	70	-8.096	-32.976	0.720	1.00	0.00
ATOM	628	O4'	THY	70	-8.626	-32.891	2.029	1.00	0.00
ATOM	629	C1'	THY	70	-9.332	-31.674	2.121	1.00	0.00
ATOM	630	N1	THY	70	-9.626	-31.317	3.535	1.00	0.00
ATOM	631	C6	THY	70	-8.640	-31.403	4.487	1.00	0.00
ATOM	632	C5	THY	70	-8.879	-31.061	5.777	1.00	0.00
ATOM	633	C7	THY	70	-7.705	-31.185	6.723	1.00	0.00
ATOM	634	C4	THY	70	-10.179	-30.601	6.213	1.00	0.00
ATOM	635	O4	THY	70	-10.465	-30.246	7.352	1.00	0.00
ATOM	636	N3	THY	70	-11.133	-30.588	5.210	1.00	0.00
ATOM	637	C2	THY	70	-10.908	-30.875	3.872	1.00	0.00
ATOM	638	O2	THY	70	-11.800	-30.705	3.046	1.00	0.00
ATOM	639	C3'	THY	70	-7.637	-31.542	0.407	1.00	0.00
ATOM	640	C2'	THY	70	-8.362	-30.694	1.465	1.00	0.00

773				774				
ATOM	641	O3' THY	70	-7.987	-31.196	-0.922	1.00	0.00
ATOM	642	P ADE	71	-7.514	-29.806	-1.599	1.00	0.00
ATOM	643	OP1 ADE	71	-6.203	-29.428	-1.022	1.00	0.00
ATOM	644	OP2 ADE	71	-7.664	-29.928	-3.065	1.00	0.00
ATOM	645	O5' ADE	71	-8.598	-28.747	-1.068	1.00	0.00
ATOM	646	C5' ADE	71	-9.917	-28.699	-1.573	1.00	0.00
ATOM	647	C4' ADE	71	-10.724	-27.643	-0.805	1.00	0.00
ATOM	648	O4' ADE	71	-11.075	-28.120	0.497	1.00	0.00
ATOM	649	C1' ADE	71	-10.913	-27.053	1.407	1.00	0.00
ATOM	650	N9 ADE	71	-10.766	-27.426	2.834	1.00	0.00
ATOM	651	C8 ADE	71	-9.644	-27.932	3.432	1.00	0.00
ATOM	652	N7 ADE	71	-9.636	-27.897	4.730	1.00	0.00
ATOM	653	C5 ADE	71	-10.872	-27.346	5.026	1.00	0.00
ATOM	654	C6 ADE	71	-11.474	-27.001	6.246	1.00	0.00
ATOM	655	N6 ADE	71	-10.858	-27.212	7.409	1.00	0.00
ATOM	656	N1 ADE	71	-12.680	-26.405	6.230	1.00	0.00
ATOM	657	C2 ADE	71	-13.258	-26.171	5.052	1.00	0.00
ATOM	658	N3 ADE	71	-12.792	-26.441	3.833	1.00	0.00
ATOM	659	C4 ADE	71	-11.573	-27.046	3.885	1.00	0.00
ATOM	660	C3' ADE	71	-9.908	-26.351	-0.585	1.00	0.00
ATOM	661	C2' ADE	71	-9.579	-26.535	0.887	1.00	0.00
ATOM	662	O3' ADE	71	-10.728	-25.223	-0.778	1.00	0.00
ATOM	663	P GUA	72	-10.196	-23.698	-0.735	1.00	0.00
ATOM	664	OP1 GUA	72	-9.900	-23.237	-2.107	1.00	0.00
ATOM	665	OP2 GUA	72	-9.191	-23.515	0.348	1.00	0.00
ATOM	666	O5' GUA	72	-11.532	-22.983	-0.217	1.00	0.00
ATOM	667	C5' GUA	72	-12.814	-23.255	-0.753	1.00	0.00
ATOM	668	C4' GUA	72	-13.875	-22.735	0.223	1.00	0.00
ATOM	669	O4' GUA	72	-13.758	-23.390	1.483	1.00	0.00
ATOM	670	C1' GUA	72	-13.453	-22.473	2.524	1.00	0.00
ATOM	671	N9 GUA	72	-12.429	-23.040	3.436	1.00	0.00
ATOM	672	C8 GUA	72	-11.242	-23.628	3.091	1.00	0.00
ATOM	673	N7 GUA	72	-10.465	-23.937	4.089	1.00	0.00
ATOM	674	C5 GUA	72	-11.221	-23.580	5.197	1.00	0.00
ATOM	675	C6 GUA	72	-10.934	-23.745	6.584	1.00	0.00
ATOM	676	O6 GUA	72	-9.911	-24.204	7.085	1.00	0.00
ATOM	677	N1 GUA	72	-11.978	-23.325	7.397	1.00	0.00
ATOM	678	C2 GUA	72	-13.163	-22.787	6.934	1.00	0.00
ATOM	679	N2 GUA	72	-14.053	-22.378	7.840	1.00	0.00
ATOM	680	N3 GUA	72	-13.430	-22.616	5.631	1.00	0.00
ATOM	681	C4 GUA	72	-12.431	-23.043	4.813	1.00	0.00
ATOM	682	C3' GUA	72	-13.684	-21.242	0.487	1.00	0.00
ATOM	683	C2' GUA	72	-12.882	-21.273	1.786	1.00	0.00
ATOM	684	O3' GUA	72	-14.953	-20.628	0.613	1.00	0.00
ATOM	685	P GUA	73	-15.127	-19.024	0.660	1.00	0.00
ATOM	686	OP1 GUA	73	-14.002	-18.403	-0.075	1.00	0.00
ATOM	687	OP2 GUA	73	-16.521	-18.699	0.284	1.00	0.00
ATOM	688	O5' GUA	73	-14.941	-18.714	2.224	1.00	0.00
ATOM	689	C5' GUA	73	-15.929	-19.097	3.158	1.00	0.00
ATOM	690	C4' GUA	73	-15.427	-18.861	4.582	1.00	0.00

775				776				
ATOM	691	O4'	GUA	73	-14.285	-19.657	4.844	1.00 0.00
ATOM	692	C1'	GUA	73	-13.459	-18.935	5.725	1.00 0.00
ATOM	693	N9	GUA	73	-12.097	-19.506	5.761	1.00 0.00
ATOM	694	C8	GUA	73	-11.231	-19.721	4.725	1.00 0.00
ATOM	695	N7	GUA	73	-10.104	-20.285	5.063	1.00 0.00
ATOM	696	C5	GUA	73	-10.226	-20.444	6.442	1.00 0.00
ATOM	697	C6	GUA	73	-9.318	-21.003	7.391	1.00 0.00
ATOM	698	O6	GUA	73	-8.191	-21.447	7.181	1.00 0.00
ATOM	699	N1	GUA	73	-9.844	-21.024	8.680	1.00 0.00
ATOM	700	C2	GUA	73	-11.096	-20.548	9.022	1.00 0.00
ATOM	701	N2	GUA	73	-11.467	-20.592	10.301	1.00 0.00
ATOM	702	N3	GUA	73	-11.936	-20.001	8.138	1.00 0.00
ATOM	703	C4	GUA	73	-11.447	-19.980	6.873	1.00 0.00
ATOM	704	C3'	GUA	73	-15.005	-17.405	4.854	1.00 0.00
ATOM	705	C2'	GUA	73	-13.498	-17.562	5.069	1.00 0.00
ATOM	706	O3'	GUA	73	-15.687	-16.967	6.017	1.00 0.00
ATOM	707	P	GUA	74	-15.561	-15.470	6.606	1.00 0.00
ATOM	708	OP1	GUA	74	-16.922	-14.904	6.736	1.00 0.00
ATOM	709	OP2	GUA	74	-14.522	-14.732	5.855	1.00 0.00
ATOM	710	O5'	GUA	74	-14.996	-15.777	8.081	1.00 0.00
ATOM	711	C5'	GUA	74	-15.783	-16.476	9.027	1.00 0.00
ATOM	712	C4'	GUA	74	-14.991	-16.733	10.312	1.00 0.00
ATOM	713	O4'	GUA	74	-13.804	-17.446	9.999	1.00 0.00
ATOM	714	C1'	GUA	74	-12.677	-16.777	10.525	1.00 0.00
ATOM	715	N9	GUA	74	-11.511	-16.983	9.636	1.00 0.00
ATOM	716	C8	GUA	74	-11.396	-16.689	8.301	1.00 0.00
ATOM	717	N7	GUA	74	-10.249	-17.016	7.774	1.00 0.00
ATOM	718	C5	GUA	74	-9.547	-17.573	8.836	1.00 0.00
ATOM	719	C6	GUA	74	-8.234	-18.133	8.877	1.00 0.00
ATOM	720	O6	GUA	74	-7.433	-18.244	7.954	1.00 0.00
ATOM	721	N1	GUA	74	-7.893	-18.595	10.143	1.00 0.00
ATOM	722	C2	GUA	74	-8.723	-18.545	11.244	1.00 0.00
ATOM	723	N2	GUA	74	-8.237	-18.953	12.417	1.00 0.00
ATOM	724	N3	GUA	74	-9.958	-18.030	11.203	1.00 0.00
ATOM	725	C4	GUA	74	-10.312	-17.561	9.978	1.00 0.00
ATOM	726	C3'	GUA	74	-14.556	-15.440	11.016	1.00 0.00
ATOM	727	C2'	GUA	74	-13.108	-15.314	10.555	1.00 0.00
ATOM	728	O3'	GUA	74	-14.689	-15.620	12.417	1.00 0.00
ATOM	729	P	THY	75	-14.328	-14.462	13.482	1.00 0.00
ATOM	730	OP1	THY	75	-14.257	-13.164	12.775	1.00 0.00
ATOM	731	OP2	THY	75	-15.220	-14.615	14.652	1.00 0.00
ATOM	732	O5'	THY	75	-12.838	-14.878	13.924	1.00 0.00
ATOM	733	C5'	THY	75	-12.608	-16.072	14.648	1.00 0.00
ATOM	734	C4'	THY	75	-11.109	-16.283	14.862	1.00 0.00
ATOM	735	O4'	THY	75	-10.437	-16.316	13.616	1.00 0.00
ATOM	736	C1'	THY	75	-9.137	-15.801	13.791	1.00 0.00
ATOM	737	N1	THY	75	-8.542	-15.420	12.479	1.00 0.00
ATOM	738	C6	THY	75	-9.287	-14.727	11.551	1.00 0.00
ATOM	739	C5	THY	75	-8.812	-14.491	10.301	1.00 0.00
ATOM	740	C7	THY	75	-9.720	-13.713	9.366	1.00 0.00

777				778				
ATOM	741	C4	THY	75	-7.505	-14.961	9.884	1.00 0.00
ATOM	742	O4	THY	75	-7.018	-14.856	8.761	1.00 0.00
ATOM	743	N3	THY	75	-6.799	-15.596	10.888	1.00 0.00
ATOM	744	C2	THY	75	-7.251	-15.854	12.173	1.00 0.00
ATOM	745	O2	THY	75	-6.527	-16.445	12.968	1.00 0.00
ATOM	746	C3'	THY	75	-10.443	-15.162	15.676	1.00 0.00
ATOM	747	C2'	THY	75	-9.432	-14.593	14.674	1.00 0.00
ATOM	748	O3'	THY	75	-9.851	-15.748	16.824	1.00 0.00
ATOM	749	P	THY	76	-8.997	-14.909	17.908	1.00 0.00
ATOM	750	OP1	THY	76	-9.081	-13.466	17.589	1.00 0.00
ATOM	751	OP2	THY	76	-9.356	-15.391	19.260	1.00 0.00
ATOM	752	O5'	THY	76	-7.509	-15.412	17.570	1.00 0.00
ATOM	753	C5'	THY	76	-7.163	-16.779	17.693	1.00 0.00
ATOM	754	C4'	THY	76	-5.727	-17.000	17.219	1.00 0.00
ATOM	755	O4'	THY	76	-5.601	-16.499	15.901	1.00 0.00
ATOM	756	C1'	THY	76	-4.420	-15.740	15.777	1.00 0.00
ATOM	757	N1	THY	76	-4.605	-14.747	14.678	1.00 0.00
ATOM	758	C6	THY	76	-5.654	-13.853	14.713	1.00 0.00
ATOM	759	C5	THY	76	-5.958	-13.078	13.639	1.00 0.00
ATOM	760	C7	THY	76	-7.119	-12.111	13.788	1.00 0.00
ATOM	761	C4	THY	76	-5.213	-13.172	12.401	1.00 0.00
ATOM	762	O4	THY	76	-5.459	-12.564	11.360	1.00 0.00
ATOM	763	N3	THY	76	-4.152	-14.057	12.456	1.00 0.00
ATOM	764	C2	THY	76	-3.796	-14.840	13.545	1.00 0.00
ATOM	765	O2	THY	76	-2.804	-15.565	13.479	1.00 0.00
ATOM	766	C3'	THY	76	-4.700	-16.255	18.083	1.00 0.00
ATOM	767	C2'	THY	76	-4.262	-15.112	17.163	1.00 0.00
ATOM	768	O3'	THY	76	-3.655	-17.155	18.416	1.00 0.00
ATOM	769	P	ADE	77	-2.486	-16.782	19.464	1.00 0.00
ATOM	770	OP1	ADE	77	-2.948	-15.691	20.347	1.00 0.00
ATOM	771	OP2	ADE	77	-1.974	-18.042	20.051	1.00 0.00
ATOM	772	O5'	ADE	77	-1.350	-16.206	18.489	1.00 0.00
ATOM	773	C5'	ADE	77	-0.607	-17.088	17.679	1.00 0.00
ATOM	774	C4'	ADE	77	0.293	-16.315	16.722	1.00 0.00
ATOM	775	O4'	ADE	77	-0.468	-15.542	15.814	1.00 0.00
ATOM	776	C1'	ADE	77	0.275	-14.393	15.472	1.00 0.00
ATOM	777	N9	ADE	77	-0.610	-13.394	14.828	1.00 0.00
ATOM	778	C8	ADE	77	-1.785	-12.869	15.307	1.00 0.00
ATOM	779	N7	ADE	77	-2.442	-12.142	14.448	1.00 0.00
ATOM	780	C5	ADE	77	-1.623	-12.152	13.325	1.00 0.00
ATOM	781	C6	ADE	77	-1.741	-11.558	12.054	1.00 0.00
ATOM	782	N6	ADE	77	-2.821	-10.856	11.703	1.00 0.00
ATOM	783	N1	ADE	77	-0.736	-11.709	11.169	1.00 0.00
ATOM	784	C2	ADE	77	0.322	-12.433	11.529	1.00 0.00
ATOM	785	N3	ADE	77	0.530	-13.091	12.669	1.00 0.00
ATOM	786	C4	ADE	77	-0.490	-12.891	13.550	1.00 0.00
ATOM	787	C3'	ADE	77	1.267	-15.334	17.394	1.00 0.00
ATOM	788	C2'	ADE	77	0.774	-13.985	16.855	1.00 0.00
ATOM	789	O3'	ADE	77	2.552	-15.718	16.941	1.00 0.00
ATOM	790	P	GUA	78	3.896	-14.903	17.254	1.00 0.00

779				780				
ATOM	791	OP1	GUA	78	3.803	-14.201	18.555	1.00 0.00
ATOM	792	OP2	GUA	78	5.030	-15.815	17.017	1.00 0.00
ATOM	793	O5'	GUA	78	3.895	-13.803	16.096	1.00 0.00
ATOM	794	C5'	GUA	78	4.882	-13.772	15.084	1.00 0.00
ATOM	795	C4'	GUA	78	5.067	-12.308	14.704	1.00 0.00
ATOM	796	O4'	GUA	78	3.853	-11.788	14.210	1.00 0.00
ATOM	797	C1'	GUA	78	3.769	-10.434	14.582	1.00 0.00
ATOM	798	N9	GUA	78	2.361	-10.007	14.442	1.00 0.00
ATOM	799	C8	GUA	78	1.260	-10.381	15.174	1.00 0.00
ATOM	800	N7	GUA	78	0.128	-9.960	14.689	1.00 0.00
ATOM	801	C5	GUA	78	0.497	-9.257	13.548	1.00 0.00
ATOM	802	C6	GUA	78	-0.304	-8.560	12.596	1.00 0.00
ATOM	803	O6	GUA	78	-1.522	-8.406	12.601	1.00 0.00
ATOM	804	N1	GUA	78	0.455	-7.986	11.582	1.00 0.00
ATOM	805	C2	GUA	78	1.833	-8.044	11.512	1.00 0.00
ATOM	806	N2	GUA	78	2.439	-7.414	10.504	1.00 0.00
ATOM	807	N3	GUA	78	2.588	-8.688	12.409	1.00 0.00
ATOM	808	C4	GUA	78	1.861	-9.273	13.397	1.00 0.00
ATOM	809	C3'	GUA	78	5.411	-11.470	15.946	1.00 0.00
ATOM	810	C2'	GUA	78	4.269	-10.454	16.023	1.00 0.00
ATOM	811	O3'	GUA	78	6.709	-10.931	15.796	1.00 0.00
ATOM	812	P	GUA	79	7.459	-10.180	17.005	1.00 0.00
ATOM	813	OP1	GUA	79	6.900	-10.696	18.280	1.00 0.00
ATOM	814	OP2	GUA	79	8.915	-10.255	16.762	1.00 0.00
ATOM	815	O5'	GUA	79	6.969	-8.666	16.752	1.00 0.00
ATOM	816	C5'	GUA	79	7.421	-7.963	15.607	1.00 0.00
ATOM	817	C4'	GUA	79	6.501	-6.795	15.245	1.00 0.00
ATOM	818	O4'	GUA	79	5.161	-7.210	15.075	1.00 0.00
ATOM	819	C1'	GUA	79	4.372	-6.043	15.105	1.00 0.00
ATOM	820	N9	GUA	79	2.942	-6.375	15.301	1.00 0.00
ATOM	821	C8	GUA	79	2.389	-7.163	16.278	1.00 0.00
ATOM	822	N7	GUA	79	1.088	-7.224	16.243	1.00 0.00
ATOM	823	C5	GUA	79	0.747	-6.442	15.144	1.00 0.00
ATOM	824	C6	GUA	79	-0.536	-6.156	14.585	1.00 0.00
ATOM	825	O6	GUA	79	-1.639	-6.499	15.001	1.00 0.00
ATOM	826	N1	GUA	79	-0.454	-5.402	13.418	1.00 0.00
ATOM	827	C2	GUA	79	0.726	-4.949	12.867	1.00 0.00
ATOM	828	N2	GUA	79	0.640	-4.254	11.731	1.00 0.00
ATOM	829	N3	GUA	79	1.931	-5.183	13.409	1.00 0.00
ATOM	830	C4	GUA	79	1.877	-5.942	14.540	1.00 0.00
ATOM	831	C3'	GUA	79	6.449	-5.675	16.292	1.00 0.00
ATOM	832	C2'	GUA	79	4.954	-5.323	16.320	1.00 0.00
ATOM	833	O3'	GUA	79	7.302	-4.628	15.854	1.00 0.00
ATOM	834	P	GUA	80	7.441	-3.219	16.628	1.00 0.00
ATOM	835	OP1	GUA	80	7.073	-3.412	18.048	1.00 0.00
ATOM	836	OP2	GUA	80	8.747	-2.621	16.275	1.00 0.00
ATOM	837	O5'	GUA	80	6.288	-2.346	15.918	1.00 0.00
ATOM	838	C5'	GUA	80	6.338	-2.069	14.531	1.00 0.00
ATOM	839	C4'	GUA	80	5.013	-1.461	14.069	1.00 0.00
ATOM	840	O4'	GUA	80	3.944	-2.342	14.366	1.00 0.00

781										782			
ATOM	841	C1'	GUA	80	2.820	-1.564	14.706	1.00	0.00				
ATOM	842	N9	GUA	80	1.801	-2.359	15.425	1.00	0.00				
ATOM	843	C8	GUA	80	1.941	-3.091	16.575	1.00	0.00				
ATOM	844	N7	GUA	80	0.833	-3.617	17.013	1.00	0.00				
ATOM	845	C5	GUA	80	-0.117	-3.215	16.080	1.00	0.00				
ATOM	846	C6	GUA	80	-1.520	-3.475	16.021	1.00	0.00				
ATOM	847	O6	GUA	80	-2.213	-4.101	16.820	1.00	0.00				
ATOM	848	N1	GUA	80	-2.109	-2.934	14.885	1.00	0.00				
ATOM	849	C2	GUA	80	-1.443	-2.202	13.926	1.00	0.00				
ATOM	850	N2	GUA	80	-2.152	-1.747	12.891	1.00	0.00				
ATOM	851	N3	GUA	80	-0.132	-1.928	13.995	1.00	0.00				
ATOM	852	C4	GUA	80	0.472	-2.465	15.089	1.00	0.00				
ATOM	853	C3'	GUA	80	4.673	-0.137	14.773	1.00	0.00				
ATOM	854	C2'	GUA	80	3.451	-0.505	15.606	1.00	0.00				
ATOM	855	O3'	GUA	80	4.314	0.849	13.826	1.00	0.00				
ATOM	856	O5'	CYT	81	-11.607	-1.478	14.018	1.00	0.00				
ATOM	857	C5'	CYT	81	-11.038	-0.288	13.511	1.00	0.00				
ATOM	858	C4'	CYT	81	-9.609	-0.533	13.013	1.00	0.00				
ATOM	859	O4'	CYT	81	-8.787	-1.069	14.026	1.00	0.00				
ATOM	860	C1'	CYT	81	-7.663	-1.631	13.384	1.00	0.00				
ATOM	861	N1	CYT	81	-6.945	-2.564	14.284	1.00	0.00				
ATOM	862	C6	CYT	81	-7.649	-3.464	15.044	1.00	0.00				
ATOM	863	C5	CYT	81	-7.025	-4.371	15.826	1.00	0.00				
ATOM	864	C4	CYT	81	-5.590	-4.335	15.844	1.00	0.00				
ATOM	865	N4	CYT	81	-4.899	-5.181	16.610	1.00	0.00				
ATOM	866	N3	CYT	81	-4.910	-3.475	15.078	1.00	0.00				
ATOM	867	C2	CYT	81	-5.552	-2.587	14.270	1.00	0.00				
ATOM	868	O2	CYT	81	-4.899	-1.842	13.541	1.00	0.00				
ATOM	869	C3'	CYT	81	-9.522	-1.553	11.869	1.00	0.00				
ATOM	870	C2'	CYT	81	-8.296	-2.395	12.229	1.00	0.00				
ATOM	871	O3'	CYT	81	-9.394	-0.853	10.644	1.00	0.00				
ATOM	872	P	CYT	82	-9.325	-1.605	9.219	1.00	0.00				
ATOM	873	OP1	CYT	82	-9.878	-0.691	8.197	1.00	0.00				
ATOM	874	OP2	CYT	82	-9.897	-2.959	9.383	1.00	0.00				
ATOM	875	O5'	CYT	82	-7.738	-1.760	8.967	1.00	0.00				
ATOM	876	C5'	CYT	82	-6.928	-0.649	8.620	1.00	0.00				
ATOM	877	C4'	CYT	82	-5.504	-1.104	8.273	1.00	0.00				
ATOM	878	O4'	CYT	82	-4.875	-1.676	9.402	1.00	0.00				
ATOM	879	C1'	CYT	82	-4.105	-2.803	9.032	1.00	0.00				
ATOM	880	N1	CYT	82	-4.084	-3.715	10.206	1.00	0.00				
ATOM	881	C6	CYT	82	-5.275	-4.078	10.776	1.00	0.00				
ATOM	882	C5	CYT	82	-5.337	-4.852	11.876	1.00	0.00				
ATOM	883	C4	CYT	82	-4.087	-5.278	12.438	1.00	0.00				
ATOM	884	N4	CYT	82	-4.076	-6.107	13.484	1.00	0.00				
ATOM	885	N3	CYT	82	-2.916	-4.888	11.910	1.00	0.00				
ATOM	886	C2	CYT	82	-2.876	-4.106	10.790	1.00	0.00				
ATOM	887	O2	CYT	82	-1.792	-3.767	10.317	1.00	0.00				
ATOM	888	C3'	CYT	82	-5.491	-2.176	7.173	1.00	0.00				
ATOM	889	C2'	CYT	82	-4.893	-3.401	7.864	1.00	0.00				
ATOM	890	O3'	CYT	82	-4.723	-1.696	6.080	1.00	0.00				

(393)

特開2003-135087

783

784

ATOM	891	P	CYT	83	-4.756	-2.395	4.623	1.00	0.00
ATOM	892	OP1	CYT	83	-6.009	-3.169	4.497	1.00	0.00
ATOM	893	OP2	CYT	83	-4.421	-1.366	3.613	1.00	0.00
ATOM	894	O5'	CYT	83	-3.533	-3.433	4.713	1.00	0.00
ATOM	895	C5'	CYT	83	-2.224	-3.074	4.309	1.00	0.00
ATOM	896	C4'	CYT	83	-1.245	-4.184	4.701	1.00	0.00
ATOM	897	O4'	CYT	83	-1.281	-4.359	6.102	1.00	0.00
ATOM	898	C1'	CYT	83	-0.761	-5.631	6.429	1.00	0.00
ATOM	899	N1	CYT	83	-1.530	-6.193	7.567	1.00	0.00
ATOM	900	C6	CYT	83	-2.895	-6.253	7.496	1.00	0.00
ATOM	901	C5	CYT	83	-3.642	-6.749	8.505	1.00	0.00
ATOM	902	C4	CYT	83	-2.932	-7.248	9.647	1.00	0.00
ATOM	903	N4	CYT	83	-3.590	-7.808	10.663	1.00	0.00
ATOM	904	N3	CYT	83	-1.595	-7.187	9.715	1.00	0.00
ATOM	905	C2	CYT	83	-0.863	-6.654	8.697	1.00	0.00
ATOM	906	O2	CYT	83	0.359	-6.596	8.789	1.00	0.00
ATOM	907	C3'	CYT	83	-1.637	-5.559	4.158	1.00	0.00
ATOM	908	C2'	CYT	83	-0.972	-6.484	5.177	1.00	0.00
ATOM	909	O3'	CYT	83	-1.162	-5.768	2.841	1.00	0.00
ATOM	910	P	THY	84	-1.537	-7.100	1.999	1.00	0.00
ATOM	911	OP1	THY	84	-1.154	-6.873	0.587	1.00	0.00
ATOM	912	OP2	THY	84	-2.926	-7.489	2.331	1.00	0.00
ATOM	913	O5'	THY	84	-0.558	-8.224	2.605	1.00	0.00
ATOM	914	C5'	THY	84	0.846	-8.138	2.453	1.00	0.00
ATOM	915	C4'	THY	84	1.516	-9.278	3.224	1.00	0.00
ATOM	916	O4'	THY	84	1.014	-9.312	4.551	1.00	0.00
ATOM	917	C1'	THY	84	0.733	-10.640	4.939	1.00	0.00
ATOM	918	N1	THY	84	-0.334	-10.628	5.983	1.00	0.00
ATOM	919	C6	THY	84	-1.566	-10.085	5.698	1.00	0.00
ATOM	920	C5	THY	84	-2.531	-9.990	6.644	1.00	0.00
ATOM	921	C7	THY	84	-3.857	-9.414	6.179	1.00	0.00
ATOM	922	C4	THY	84	-2.306	-10.427	8.004	1.00	0.00
ATOM	923	O4	THY	84	-3.120	-10.355	8.917	1.00	0.00
ATOM	924	N3	THY	84	-1.045	-10.960	8.226	1.00	0.00
ATOM	925	C2	THY	84	-0.039	-11.084	7.273	1.00	0.00
ATOM	926	O2	THY	84	1.043	-11.572	7.587	1.00	0.00
ATOM	927	C3'	THY	84	1.239	-10.657	2.606	1.00	0.00
ATOM	928	C2'	THY	84	0.288	-11.290	3.625	1.00	0.00
ATOM	929	O3'	THY	84	2.471	-11.343	2.458	1.00	0.00
ATOM	930	P	ADE	85	2.584	-12.790	1.750	1.00	0.00
ATOM	931	OP1	ADE	85	1.464	-12.948	0.796	1.00	0.00
ATOM	932	OP2	ADE	85	3.977	-12.982	1.289	1.00	0.00
ATOM	933	O5'	ADE	85	2.331	-13.775	2.992	1.00	0.00
ATOM	934	C5'	ADE	85	3.256	-13.836	4.059	1.00	0.00
ATOM	935	C4'	ADE	85	2.644	-14.609	5.225	1.00	0.00
ATOM	936	O4'	ADE	85	1.465	-13.983	5.690	1.00	0.00
ATOM	937	C1'	ADE	85	0.708	-14.966	6.356	1.00	0.00
ATOM	938	N9	ADE	85	-0.674	-14.488	6.592	1.00	0.00
ATOM	939	C8	ADE	85	-1.573	-13.981	5.686	1.00	0.00
ATOM	940	N7	ADE	85	-2.695	-13.573	6.211	1.00	0.00

	785				786				
ATOM	941	C5	ADE	85	-2.531	-13.825	7.567	1.00	0.00
ATOM	942	C6	ADE	85	-3.348	-13.596	8.694	1.00	0.00
ATOM	943	N6	ADE	85	-4.565	-13.051	8.631	1.00	0.00
ATOM	944	N1	ADE	85	-2.868	-13.924	9.903	1.00	0.00
ATOM	945	C2	ADE	85	-1.659	-14.455	9.996	1.00	0.00
ATOM	946	N3	ADE	85	-0.799	-14.742	9.027	1.00	0.00
ATOM	947	C4	ADE	85	-1.301	-14.386	7.812	1.00	0.00
ATOM	948	C3'	ADE	85	2.233	-16.047	4.864	1.00	0.00
ATOM	949	C2'	ADE	85	0.776	-16.101	5.341	1.00	0.00
ATOM	950	O3'	ADE	85	3.113	-16.923	5.545	1.00	0.00
ATOM	951	P	ADE	86	2.992	-18.530	5.495	1.00	0.00
ATOM	952	OP1	ADE	86	1.967	-18.902	4.492	1.00	0.00
ATOM	953	OP2	ADE	86	4.358	-19.083	5.383	1.00	0.00
ATOM	954	O5'	ADE	86	2.450	-18.843	6.972	1.00	0.00
ATOM	955	C5'	ADE	86	3.248	-18.486	8.082	1.00	0.00
ATOM	956	C4'	ADE	86	2.563	-18.761	9.415	1.00	0.00
ATOM	957	O4'	ADE	86	1.321	-18.081	9.469	1.00	0.00
ATOM	958	C1'	ADE	86	0.257	-18.996	9.660	1.00	0.00
ATOM	959	N9	ADE	86	-0.914	-18.533	8.873	1.00	0.00
ATOM	960	C8	ADE	86	-1.081	-18.499	7.510	1.00	0.00
ATOM	961	N7	ADE	86	-2.176	-17.909	7.114	1.00	0.00
ATOM	962	C5	ADE	86	-2.803	-17.551	8.299	1.00	0.00
ATOM	963	C6	ADE	86	-4.031	-16.920	8.589	1.00	0.00
ATOM	964	N6	ADE	86	-4.872	-16.483	7.649	1.00	0.00
ATOM	965	N1	ADE	86	-4.372	-16.748	9.877	1.00	0.00
ATOM	966	C2	ADE	86	-3.539	-17.152	10.827	1.00	0.00
ATOM	967	N3	ADE	86	-2.339	-17.709	10.692	1.00	0.00
ATOM	968	C4	ADE	86	-2.036	-17.915	9.379	1.00	0.00
ATOM	969	C3'	ADE	86	2.262	-20.228	9.722	1.00	0.00
ATOM	970	C2'	ADE	86	0.821	-20.350	9.228	1.00	0.00
ATOM	971	O3'	ADE	86	2.416	-20.359	11.125	1.00	0.00
ATOM	972	P	CYT	87	2.329	-21.762	11.900	1.00	0.00
ATOM	973	OP1	CYT	87	3.250	-21.698	13.057	1.00	0.00
ATOM	974	OP2	CYT	87	2.454	-22.861	10.916	1.00	0.00
ATOM	975	O5'	CYT	87	0.824	-21.699	12.469	1.00	0.00
ATOM	976	C5'	CYT	87	0.535	-20.876	13.586	1.00	0.00
ATOM	977	C4'	CYT	87	-0.968	-20.702	13.808	1.00	0.00
ATOM	978	O4'	CYT	87	-1.603	-20.269	12.626	1.00	0.00
ATOM	979	C1'	CYT	87	-2.958	-20.654	12.696	1.00	0.00
ATOM	980	N1	CYT	87	-3.572	-20.618	11.345	1.00	0.00
ATOM	981	C6	CYT	87	-2.871	-21.056	10.246	1.00	0.00
ATOM	982	C5	CYT	87	-3.361	-20.909	8.993	1.00	0.00
ATOM	983	C4	CYT	87	-4.639	-20.269	8.866	1.00	0.00
ATOM	984	N4	CYT	87	-5.138	-19.988	7.666	1.00	0.00
ATOM	985	N3	CYT	87	-5.334	-19.888	9.943	1.00	0.00
ATOM	986	C2	CYT	87	-4.842	-20.062	11.197	1.00	0.00
ATOM	987	O2	CYT	87	-5.514	-19.718	12.165	1.00	0.00
ATOM	988	C3'	CYT	87	-1.712	-21.970	14.251	1.00	0.00
ATOM	989	C2'	CYT	87	-2.848	-22.073	13.234	1.00	0.00
ATOM	990	O3'	CYT	87	-2.154	-21.765	15.586	1.00	0.00

787				788				
ATOM	991	P	CYT	88	-2.879	-22.914	16.456	1.00 0.00
ATOM	992	OP1	CYT	88	-2.419	-24.230	15.967	1.00 0.00
ATOM	993	OP2	CYT	88	-2.712	-22.568	17.888	1.00 0.00
ATOM	994	O5'	CYT	88	-4.431	-22.739	16.073	1.00 0.00
ATOM	995	C5'	CYT	88	-5.187	-21.636	16.545	1.00 0.00
ATOM	996	C4'	CYT	88	-6.570	-21.628	15.885	1.00 0.00
ATOM	997	O4'	CYT	88	-6.433	-21.541	14.483	1.00 0.00
ATOM	998	C1'	CYT	88	-7.593	-22.078	13.887	1.00 0.00
ATOM	999	N1	CYT	88	-7.279	-22.468	12.492	1.00 0.00
ATOM	1000	C6	CYT	88	-6.105	-23.116	12.222	1.00 0.00
ATOM	1001	C5	CYT	88	-5.682	-23.335	10.960	1.00 0.00
ATOM	1002	C4	CYT	88	-6.543	-22.868	9.906	1.00 0.00
ATOM	1003	N4	CYT	88	-6.179	-22.970	8.627	1.00 0.00
ATOM	1004	N3	CYT	88	-7.734	-22.316	10.177	1.00 0.00
ATOM	1005	C2	CYT	88	-8.142	-22.120	11.461	1.00 0.00
ATOM	1006	O2	CYT	88	-9.257	-21.660	11.687	1.00 0.00
ATOM	1007	C3'	CYT	88	-7.385	-22.907	16.133	1.00 0.00
ATOM	1008	C2'	CYT	88	-7.860	-23.311	14.737	1.00 0.00
ATOM	1009	O3'	CYT	88	-8.439	-22.606	17.034	1.00 0.00
ATOM	1010	P	CYT	89	-9.577	-23.675	17.451	1.00 0.00
ATOM	1011	OP1	CYT	89	-9.066	-25.037	17.182	1.00 0.00
ATOM	1012	OP2	CYT	89	-10.064	-23.325	18.803	1.00 0.00
ATOM	1013	O5'	CYT	89	-10.756	-23.365	16.393	1.00 0.00
ATOM	1014	C5'	CYT	89	-11.455	-22.132	16.407	1.00 0.00
ATOM	1015	C4'	CYT	89	-12.473	-22.078	15.261	1.00 0.00
ATOM	1016	O4'	CYT	89	-11.810	-22.265	14.028	1.00 0.00
ATOM	1017	C1'	CYT	89	-12.640	-22.970	13.130	1.00 0.00
ATOM	1018	N1	CYT	89	-11.771	-23.728	12.194	1.00 0.00
ATOM	1019	C6	CYT	89	-10.693	-24.410	12.693	1.00 0.00
ATOM	1020	C5	CYT	89	-9.778	-24.989	11.887	1.00 0.00
ATOM	1021	C4	CYT	89	-10.001	-24.871	10.473	1.00 0.00
ATOM	1022	N4	CYT	89	-9.136	-25.401	9.608	1.00 0.00
ATOM	1023	N3	CYT	89	-11.087	-24.249	9.989	1.00 0.00
ATOM	1024	C2	CYT	89	-12.002	-23.678	10.823	1.00 0.00
ATOM	1025	O2	CYT	89	-13.003	-23.142	10.354	1.00 0.00
ATOM	1026	C3'	CYT	89	-13.541	-23.179	15.352	1.00 0.00
ATOM	1027	C2'	CYT	89	-13.399	-23.934	14.033	1.00 0.00
ATOM	1028	O3'	CYT	89	-14.815	-22.574	15.522	1.00 0.00
ATOM	1029	P	THY	90	-16.186	-23.424	15.671	1.00 0.00
ATOM	1030	OP1	THY	90	-17.167	-22.591	16.402	1.00 0.00
ATOM	1031	OP2	THY	90	-15.849	-24.775	16.173	1.00 0.00
ATOM	1032	O5'	THY	90	-16.691	-23.568	14.145	1.00 0.00
ATOM	1033	C5'	THY	90	-17.099	-22.439	13.396	1.00 0.00
ATOM	1034	C4'	THY	90	-17.341	-22.826	11.933	1.00 0.00
ATOM	1035	O4'	THY	90	-16.166	-23.403	11.398	1.00 0.00
ATOM	1036	C1'	THY	90	-16.520	-24.389	10.456	1.00 0.00
ATOM	1037	N1	THY	90	-15.375	-25.324	10.300	1.00 0.00
ATOM	1038	C6	THY	90	-14.835	-25.924	11.413	1.00 0.00
ATOM	1039	C5	THY	90	-13.723	-26.689	11.332	1.00 0.00
ATOM	1040	C7	THY	90	-13.228	-27.317	12.622	1.00 0.00

(396)

特開2003-135087

789					790				
ATOM	1041	C4	THY	90	-13.045	-26.898	10.071	1.00	0.00
ATOM	1042	O4	THY	90	-12.019	-27.554	9.927	1.00	0.00
ATOM	1043	N3	THY	90	-13.649	-26.272	8.990	1.00	0.00
ATOM	1044	C2	THY	90	-14.813	-25.518	9.038	1.00	0.00
ATOM	1045	O2	THY	90	-15.307	-25.077	8.004	1.00	0.00
ATOM	1046	C3'	THY	90	-18.458	-23.865	11.742	1.00	0.00
ATOM	1047	C2'	THY	90	-17.724	-25.055	11.121	1.00	0.00
ATOM	1048	O3'	THY	90	-19.453	-23.320	10.890	1.00	0.00
ATOM	1049	P	ADE	91	-20.842	-24.084	10.575	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.163	-24.971	11.715	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.829	-23.077	10.125	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.457	-25.008	9.313	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.267	-24.453	8.028	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.674	-25.498	7.078	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.409	-25.934	7.525	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.125	-27.130	6.838	1.00	0.00
ATOM	1057	N9	ADE	91	-17.029	-27.850	7.511	1.00	0.00
ATOM	1058	C8	ADE	91	-16.894	-28.111	8.849	1.00	0.00
ATOM	1059	N7	ADE	91	-15.783	-28.716	9.168	1.00	0.00
ATOM	1060	C5	ADE	91	-15.148	-28.889	7.941	1.00	0.00
ATOM	1061	C6	ADE	91	-13.921	-29.470	7.566	1.00	0.00
ATOM	1062	N6	ADE	91	-13.071	-29.988	8.456	1.00	0.00
ATOM	1063	N1	ADE	91	-13.607	-29.530	6.258	1.00	0.00
ATOM	1064	C2	ADE	91	-14.457	-29.024	5.368	1.00	0.00
ATOM	1065	N3	ADE	91	-15.622	-28.427	5.591	1.00	0.00
ATOM	1066	C4	ADE	91	-15.913	-28.389	6.919	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.503	-26.785	6.947	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.438	-27.889	6.975	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.247	-26.716	5.741	1.00	0.00
ATOM	1070	P	ADE	92	-22.163	-27.929	5.191	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.188	-27.362	4.287	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.574	-28.772	6.336	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.115	-28.766	4.295	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.494	-28.182	3.166	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.414	-29.108	2.600	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.427	-29.370	3.584	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.010	-30.713	3.463	1.00	0.00
ATOM	1078	N9	ADE	92	-17.379	-31.174	4.719	1.00	0.00
ATOM	1079	C8	ADE	92	-17.901	-31.151	5.987	1.00	0.00
ATOM	1080	N7	ADE	92	-17.101	-31.602	6.912	1.00	0.00
ATOM	1081	C5	ADE	92	-15.961	-31.955	6.203	1.00	0.00
ATOM	1082	C6	ADE	92	-14.728	-32.507	6.597	1.00	0.00
ATOM	1083	N6	ADE	92	-14.462	-32.793	7.871	1.00	0.00
ATOM	1084	N1	ADE	92	-13.796	-32.751	5.656	1.00	0.00
ATOM	1085	C2	ADE	92	-14.078	-32.460	4.389	1.00	0.00
ATOM	1086	N3	ADE	92	-15.197	-31.943	3.889	1.00	0.00
ATOM	1087	C4	ADE	92	-16.116	-31.704	4.863	1.00	0.00
ATOM	1088	C3'	ADE	92	-19.958	-30.478	2.161	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.345	-31.407	3.212	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.500	-30.742	0.846	1.00	0.00

(397)

特開2003-135087

791

792

ATOM	1091	P	CYT	93	-19.963	-32.044	0.009	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.022	-32.751	0.762	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.198	-31.639	-1.394	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.635	-32.949	0.054	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.491	-32.610	-0.708	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.365	-33.597	-0.395	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.102	-33.564	0.988	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.609	-34.817	1.402	1.00	0.00
ATOM	1099	N1	CYT	93	-15.890	-34.987	2.849	1.00	0.00
ATOM	1100	C6	CYT	93	-17.106	-34.606	3.359	1.00	0.00
ATOM	1101	C5	CYT	93	-17.388	-34.709	4.677	1.00	0.00
ATOM	1102	C4	CYT	93	-16.349	-35.230	5.520	1.00	0.00
ATOM	1103	N4	CYT	93	-16.502	-35.268	6.845	1.00	0.00
ATOM	1104	N3	CYT	93	-15.174	-35.628	5.012	1.00	0.00
ATOM	1105	C2	CYT	93	-14.913	-35.529	3.679	1.00	0.00
ATOM	1106	O2	CYT	93	-13.831	-35.910	3.238	1.00	0.00
ATOM	1107	C3'	CYT	93	-16.742	-35.053	-0.703	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.426	-35.815	0.581	1.00	0.00
ATOM	1109	O3'	CYT	93	-15.971	-35.557	-1.775	1.00	0.00

END

HEADER 000000

REMARK	0.00534	1.71627	0.02586	0.01834	1.81270	1.64266
0.00000						

REMARK	2.82104	0.20743	0.85035	1.10380	0.65945
--------	---------	---------	---------	---------	---------

REMARK	0.01211	0.00346	0.01388	0.01801	0.00790
--------	---------	---------	---------	---------	---------

REMARK	123	119	3	1	0	0
0						

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.04052	0.25438	0.03966	0.04447	0.25438	0.13786
--------	---------	---------	---------	---------	---------	---------

REMARK	2.38070	0.15632
--------	---------	---------

REMARK	2	2	0	0	0	0
0						

ATOM	1	N	GLU	1	-0.048	-12.352	30.021	1.00	0.00
ATOM	2	CA	GLU	1	0.835	-12.054	28.880	1.00	0.00
ATOM	3	CB	GLU	1	2.077	-12.953	28.925	1.00	0.00
ATOM	4	CG	GLU	1	3.155	-12.527	27.921	1.00	0.00
ATOM	5	CD	GLU	1	4.162	-13.646	27.719	1.00	0.00
ATOM	6	OE1	GLU	1	3.793	-14.591	26.988	1.00	0.00
ATOM	7	OE2	GLU	1	5.265	-13.536	28.295	1.00	0.00
ATOM	8	C	GLU	1	0.068	-12.285	27.580	1.00	0.00
ATOM	9	O	GLU	1	-0.782	-13.172	27.532	1.00	0.00
ATOM	10	N	LYS	2	0.368	-11.511	26.530	1.00	0.00
ATOM	11	CA	LYS	2	-0.267	-11.647	25.226	1.00	0.00
ATOM	12	CB	LYS	2	-0.242	-10.299	24.489	1.00	0.00

793

794

ATOM	13	CG	LYS	2	-1.025	-9.217	25.247	1.00	0.00
ATOM	14	CD	LYS	2	-1.018	-7.867	24.516	1.00	0.00
ATOM	15	CE	LYS	2	-1.822	-7.904	23.207	1.00	0.00
ATOM	16	NZ	LYS	2	-1.906	-6.573	22.577	1.00	0.00
ATOM	17	C	LYS	2	0.427	-12.757	24.423	1.00	0.00
ATOM	18	O	LYS	2	0.873	-12.522	23.304	1.00	0.00
ATOM	19	N	HIS	3	0.500	-13.958	25.016	1.00	0.00
ATOM	20	CA	HIS	3	1.085	-15.179	24.467	1.00	0.00
ATOM	21	CB	HIS	3	0.001	-15.939	23.686	1.00	0.00
ATOM	22	CG	HIS	3	-1.260	-16.190	24.474	1.00	0.00
ATOM	23	ND1	HIS	3	-2.517	-16.132	23.893	1.00	0.00
ATOM	24	CE1	HIS	3	-3.417	-16.398	24.854	1.00	0.00
ATOM	25	NE2	HIS	3	-2.850	-16.630	26.041	1.00	0.00
ATOM	26	CD2	HIS	3	-1.486	-16.497	25.795	1.00	0.00
ATOM	27	C	HIS	3	2.329	-14.927	23.607	1.00	0.00
ATOM	28	O	HIS	3	2.284	-15.106	22.391	1.00	0.00
ATOM	29	N	ARG	4	3.442	-14.522	24.230	1.00	0.00
ATOM	30	CA	ARG	4	4.690	-14.245	23.528	1.00	0.00
ATOM	31	CB	ARG	4	5.567	-13.291	24.349	1.00	0.00
ATOM	32	CG	ARG	4	4.927	-11.903	24.517	1.00	0.00
ATOM	33	CD	ARG	4	5.523	-10.844	23.577	1.00	0.00
ATOM	34	NE	ARG	4	5.166	-11.041	22.160	1.00	0.00
ATOM	35	CZ	ARG	4	5.643	-10.296	21.147	1.00	0.00
ATOM	36	NH1	ARG	4	6.588	-9.372	21.365	1.00	0.00
ATOM	37	NH2	ARG	4	5.164	-10.474	19.914	1.00	0.00
ATOM	38	C	ARG	4	5.411	-15.548	23.177	1.00	0.00
ATOM	39	O	ARG	4	6.466	-15.862	23.725	1.00	0.00
ATOM	40	N	ALA	5	4.821	-16.296	22.242	1.00	0.00
ATOM	41	CA	ALA	5	5.307	-17.554	21.710	1.00	0.00
ATOM	42	CB	ALA	5	4.574	-18.719	22.379	1.00	0.00
ATOM	43	C	ALA	5	5.028	-17.491	20.213	1.00	0.00
ATOM	44	O	ALA	5	3.864	-17.493	19.815	1.00	0.00
ATOM	45	N	ARG	6	6.085	-17.410	19.393	1.00	0.00
ATOM	46	CA	ARG	6	5.986	-17.284	17.944	1.00	0.00
ATOM	47	CB	ARG	6	7.331	-16.798	17.376	1.00	0.00
ATOM	48	CG	ARG	6	7.254	-16.418	15.886	1.00	0.00
ATOM	49	CD	ARG	6	8.361	-15.423	15.504	1.00	0.00
ATOM	50	NE	ARG	6	9.696	-15.984	15.755	1.00	0.00
ATOM	51	CZ	ARG	6	10.859	-15.311	15.685	1.00	0.00
ATOM	52	NH1	ARG	6	10.910	-14.023	15.320	1.00	0.00
ATOM	53	NH2	ARG	6	11.998	-15.947	15.989	1.00	0.00
ATOM	54	C	ARG	6	5.449	-18.555	17.280	1.00	0.00
ATOM	55	O	ARG	6	6.182	-19.290	16.623	1.00	0.00
ATOM	56	N	LYS	7	4.142	-18.782	17.448	1.00	0.00
ATOM	57	CA	LYS	7	3.401	-19.899	16.886	1.00	0.00
ATOM	58	CB	LYS	7	1.920	-19.757	17.246	1.00	0.00
ATOM	59	CG	LYS	7	1.580	-20.041	18.712	1.00	0.00
ATOM	60	CD	LYS	7	0.064	-19.863	18.842	1.00	0.00
ATOM	61	CE	LYS	7	-0.504	-20.323	20.186	1.00	0.00
ATOM	62	NZ	LYS	7	-1.976	-20.211	20.188	1.00	0.00

795					796				
ATOM	63	C	LYS	7	3.502	-19.890	15.363	1.00	0.00
ATOM	64	O	LYS	7	3.602	-20.943	14.744	1.00	0.00
ATOM	65	N	ARG	8	3.449	-18.691	14.773	1.00	0.00
ATOM	66	CA	ARG	8	3.505	-18.467	13.340	1.00	0.00
ATOM	67	CB	ARG	8	3.010	-17.039	13.030	1.00	0.00
ATOM	68	CG	ARG	8	1.476	-16.869	13.077	1.00	0.00
ATOM	69	CD	ARG	8	0.809	-17.294	14.397	1.00	0.00
ATOM	70	NE	ARG	8	-0.639	-17.017	14.398	1.00	0.00
ATOM	71	CZ	ARG	8	-1.567	-17.694	15.103	1.00	0.00
ATOM	72	NH1	ARG	8	-1.218	-18.639	15.985	1.00	0.00
ATOM	73	NH2	ARG	8	-2.862	-17.423	14.921	1.00	0.00
ATOM	74	C	ARG	8	4.936	-18.740	12.855	1.00	0.00
ATOM	75	O	ARG	8	5.729	-17.815	12.679	1.00	0.00
ATOM	76	N	GLN	9	5.260	-20.021	12.648	1.00	0.00
ATOM	77	CA	GLN	9	6.568	-20.482	12.207	1.00	0.00
ATOM	78	CB	GLN	9	6.719	-21.978	12.519	1.00	0.00
ATOM	79	CG	GLN	9	6.722	-22.289	14.020	1.00	0.00
ATOM	80	CD	GLN	9	6.602	-23.791	14.266	1.00	0.00
ATOM	81	OE1	GLN	9	7.527	-24.414	14.783	1.00	0.00
ATOM	82	NE2	GLN	9	5.466	-24.383	13.897	1.00	0.00
ATOM	83	C	GLN	9	6.727	-20.259	10.704	1.00	0.00
ATOM	84	O	GLN	9	6.306	-21.104	9.914	1.00	0.00
ATOM	85	N	ALA	10	7.348	-19.141	10.310	1.00	0.00
ATOM	86	CA	ALA	10	7.610	-18.793	8.917	1.00	0.00
ATOM	87	CB	ALA	10	8.534	-17.574	8.862	1.00	0.00
ATOM	88	C	ALA	10	8.235	-19.977	8.172	1.00	0.00
ATOM	89	O	ALA	10	9.212	-20.554	8.647	1.00	0.00
ATOM	90	N	TRP	11	7.674	-20.350	7.016	1.00	0.00
ATOM	91	CA	TRP	11	8.181	-21.453	6.215	1.00	0.00
ATOM	92	CB	TRP	11	7.198	-21.854	5.116	1.00	0.00
ATOM	93	CG	TRP	11	5.973	-22.619	5.538	1.00	0.00
ATOM	94	CD1	TRP	11	5.056	-22.237	6.456	1.00	0.00
ATOM	95	NE1	TRP	11	4.070	-23.197	6.577	1.00	0.00
ATOM	96	CE2	TRP	11	4.310	-24.263	5.736	1.00	0.00
ATOM	97	CZ2	TRP	11	3.629	-25.466	5.488	1.00	0.00
ATOM	98	CH2	TRP	11	4.152	-26.372	4.554	1.00	0.00
ATOM	99	CZ3	TRP	11	5.342	-26.062	3.876	1.00	0.00
ATOM	100	CE3	TRP	11	6.010	-24.849	4.123	1.00	0.00
ATOM	101	CD2	TRP	11	5.519	-23.921	5.061	1.00	0.00
ATOM	102	C	TRP	11	9.541	-21.081	5.630	1.00	0.00
ATOM	103	O	TRP	11	9.751	-19.963	5.160	1.00	0.00
ATOM	104	N	LEU	12	10.454	-22.048	5.674	1.00	0.00
ATOM	105	CA	LEU	12	11.820	-21.934	5.180	1.00	0.00
ATOM	106	CB	LEU	12	12.684	-22.902	6.007	1.00	0.00
ATOM	107	CG	LEU	12	14.201	-22.788	5.802	1.00	0.00
ATOM	108	CD1	LEU	12	14.721	-21.392	6.169	1.00	0.00
ATOM	109	CD2	LEU	12	14.897	-23.837	6.674	1.00	0.00
ATOM	110	C	LEU	12	11.830	-22.266	3.684	1.00	0.00
ATOM	111	O	LEU	12	10.857	-22.839	3.191	1.00	0.00
ATOM	112	N	TRP	13	12.913	-21.924	2.960	1.00	0.00

(400)

特開2003-135087

797

798

ATOM	113	CA	TRP	13	13.004	-22.229	1.530	1.00	0.00
ATOM	114	CB	TRP	13	14.362	-21.946	0.873	1.00	0.00
ATOM	115	CG	TRP	13	15.228	-21.009	1.602	1.00	0.00
ATOM	116	CD1	TRP	13	15.222	-19.695	1.391	1.00	0.00
ATOM	117	NE1	TRP	13	16.136	-19.082	2.232	1.00	0.00
ATOM	118	CE2	TRP	13	16.776	-20.024	3.030	1.00	0.00
ATOM	119	CZ2	TRP	13	17.763	-19.955	4.027	1.00	0.00
ATOM	120	CH2	TRP	13	18.193	-21.143	4.652	1.00	0.00
ATOM	121	CZ3	TRP	13	17.636	-22.380	4.274	1.00	0.00
ATOM	122	CE3	TRP	13	16.654	-22.431	3.275	1.00	0.00
ATOM	123	CD2	TRP	13	16.204	-21.264	2.635	1.00	0.00
ATOM	124	C	TRP	13	12.764	-23.701	1.368	1.00	0.00
ATOM	125	O	TRP	13	11.803	-24.079	0.732	1.00	0.00
ATOM	126	N	GLU	14	13.645	-24.509	1.953	1.00	0.00
ATOM	127	CA	GLU	14	13.566	-25.955	1.875	1.00	0.00
ATOM	128	CB	GLU	14	14.566	-26.616	2.840	1.00	0.00
ATOM	129	CG	GLU	14	16.052	-26.431	2.477	1.00	0.00
ATOM	130	CD	GLU	14	16.341	-26.455	0.980	1.00	0.00
ATOM	131	OE1	GLU	14	16.314	-27.556	0.389	1.00	0.00
ATOM	132	OE2	GLU	14	16.578	-25.368	0.411	1.00	0.00
ATOM	133	C	GLU	14	12.125	-26.457	2.017	1.00	0.00
ATOM	134	O	GLU	14	11.713	-27.299	1.225	1.00	0.00
ATOM	135	N	GLU	15	11.336	-25.934	2.965	1.00	0.00
ATOM	136	CA	GLU	15	9.946	-26.348	3.087	1.00	0.00
ATOM	137	CB	GLU	15	9.304	-25.792	4.360	1.00	0.00
ATOM	138	CG	GLU	15	9.981	-26.223	5.659	1.00	0.00
ATOM	139	CD	GLU	15	9.105	-25.813	6.836	1.00	0.00
ATOM	140	OE1	GLU	15	9.370	-24.735	7.416	1.00	0.00
ATOM	141	OE2	GLU	15	8.179	-26.590	7.153	1.00	0.00
ATOM	142	C	GLU	15	9.128	-25.923	1.855	1.00	0.00
ATOM	143	O	GLU	15	8.482	-26.760	1.235	1.00	0.00
ATOM	144	N	ASP	16	9.149	-24.631	1.502	1.00	0.00
ATOM	145	CA	ASP	16	8.431	-24.056	0.361	1.00	0.00
ATOM	146	CB	ASP	16	8.845	-22.588	0.230	1.00	0.00
ATOM	147	CG	ASP	16	8.002	-21.878	-0.813	1.00	0.00
ATOM	148	OD1	ASP	16	6.874	-21.481	-0.453	1.00	0.00
ATOM	149	OD2	ASP	16	8.500	-21.736	-1.950	1.00	0.00
ATOM	150	C	ASP	16	8.779	-24.766	-0.946	1.00	0.00
ATOM	151	O	ASP	16	7.940	-25.329	-1.641	1.00	0.00
ATOM	152	N	LYS	17	10.070	-24.703	-1.234	1.00	0.00
ATOM	153	CA	LYS	17	10.807	-25.268	-2.347	1.00	0.00
ATOM	154	CB	LYS	17	12.303	-25.091	-2.000	1.00	0.00
ATOM	155	CG	LYS	17	13.286	-25.751	-2.973	1.00	0.00
ATOM	156	CD	LYS	17	14.690	-25.613	-2.366	1.00	0.00
ATOM	157	CE	LYS	17	15.707	-26.588	-2.968	1.00	0.00
ATOM	158	NZ	LYS	17	16.931	-26.632	-2.147	1.00	0.00
ATOM	159	C	LYS	17	10.360	-26.727	-2.529	1.00	0.00
ATOM	160	O	LYS	17	9.863	-27.104	-3.592	1.00	0.00
ATOM	161	N	ASN	18	10.522	-27.543	-1.480	1.00	0.00
ATOM	162	CA	ASN	18	10.145	-28.950	-1.483	1.00	0.00

(401)

特開2003-135087

799

800

ATOM	163	CB	ASN	18	10.654	-29.592	-0.189	1.00	0.00
ATOM	164	CG	ASN	18	10.510	-31.106	-0.127	1.00	0.00
ATOM	165	OD1	ASN	18	10.232	-31.766	-1.124	1.00	0.00
ATOM	166	ND2	ASN	18	10.739	-31.659	1.064	1.00	0.00
ATOM	167	C	ASN	18	8.635	-29.139	-1.670	1.00	0.00
ATOM	168	O	ASN	18	8.219	-30.013	-2.425	1.00	0.00
ATOM	169	N	LEU	19	7.806	-28.324	-1.003	1.00	0.00
ATOM	170	CA	LEU	19	6.350	-28.385	-1.108	1.00	0.00
ATOM	171	CB	LEU	19	5.699	-27.322	-0.206	1.00	0.00
ATOM	172	CG	LEU	19	4.164	-27.290	-0.285	1.00	0.00
ATOM	173	CD1	LEU	19	3.561	-28.575	0.286	1.00	0.00
ATOM	174	CD2	LEU	19	3.626	-26.085	0.494	1.00	0.00
ATOM	175	C	LEU	19	5.934	-28.224	-2.568	1.00	0.00
ATOM	176	O	LEU	19	5.167	-29.033	-3.082	1.00	0.00
ATOM	177	N	ARG	20	6.454	-27.190	-3.236	1.00	0.00
ATOM	178	CA	ARG	20	6.191	-26.898	-4.638	1.00	0.00
ATOM	179	CB	ARG	20	7.000	-25.660	-5.032	1.00	0.00
ATOM	180	CG	ARG	20	6.806	-25.231	-6.492	1.00	0.00
ATOM	181	CD	ARG	20	7.710	-24.041	-6.850	1.00	0.00
ATOM	182	NE	ARG	20	7.340	-22.817	-6.122	1.00	0.00
ATOM	183	CZ	ARG	20	7.792	-22.436	-4.913	1.00	0.00
ATOM	184	NH1	ARG	20	7.314	-21.337	-4.323	1.00	0.00
ATOM	185	NH2	ARG	20	8.713	-23.146	-4.255	1.00	0.00
ATOM	186	C	ARG	20	6.541	-28.125	-5.482	1.00	0.00
ATOM	187	O	ARG	20	5.721	-28.577	-6.283	1.00	0.00
ATOM	188	N	SER	21	7.749	-28.676	-5.285	1.00	0.00
ATOM	189	CA	SER	21	8.174	-29.874	-5.997	1.00	0.00
ATOM	190	CB	SER	21	9.581	-30.288	-5.552	1.00	0.00
ATOM	191	OG	SER	21	10.481	-29.210	-5.706	1.00	0.00
ATOM	192	C	SER	21	7.163	-31.003	-5.767	1.00	0.00
ATOM	193	O	SER	21	6.795	-31.705	-6.705	1.00	0.00
ATOM	194	N	GLY	22	6.705	-31.160	-4.520	1.00	0.00
ATOM	195	CA	GLY	22	5.725	-32.155	-4.120	1.00	0.00
ATOM	196	C	GLY	22	4.424	-31.986	-4.903	1.00	0.00
ATOM	197	O	GLY	22	3.934	-32.949	-5.485	1.00	0.00
ATOM	198	N	VAL	23	3.866	-30.771	-4.936	1.00	0.00
ATOM	199	CA	VAL	23	2.635	-30.488	-5.663	1.00	0.00
ATOM	200	CB	VAL	23	2.216	-29.016	-5.501	1.00	0.00
ATOM	201	CG1	VAL	23	1.001	-28.697	-6.386	1.00	0.00
ATOM	202	CG2	VAL	23	1.827	-28.737	-4.047	1.00	0.00
ATOM	203	C	VAL	23	2.793	-30.873	-7.132	1.00	0.00
ATOM	204	O	VAL	23	1.910	-31.511	-7.696	1.00	0.00
ATOM	205	N	ARG	24	3.910	-30.501	-7.762	1.00	0.00
ATOM	206	CA	ARG	24	4.126	-30.840	-9.161	1.00	0.00
ATOM	207	CB	ARG	24	5.347	-30.075	-9.699	1.00	0.00
ATOM	208	CG	ARG	24	5.317	-29.930	-11.230	1.00	0.00
ATOM	209	CD	ARG	24	4.397	-28.784	-11.680	1.00	0.00
ATOM	210	NE	ARG	24	4.345	-28.687	-13.149	1.00	0.00
ATOM	211	CZ	ARG	24	3.960	-27.612	-13.855	1.00	0.00
ATOM	212	NH1	ARG	24	3.999	-27.662	-15.189	1.00	0.00

(402)

特開2003-135087

801				802			
ATOM	213	NH2 ARG	24	3.538	-26.489	-13.261	1.00 0.00
ATOM	214	C ARG	24	4.271	-32.359	-9.349	1.00 0.00
ATOM	215	O ARG	24	3.795	-32.906	-10.340	1.00 0.00
ATOM	216	N LYS	25	4.939	-33.037	-8.407	1.00 0.00
ATOM	217	CA LYS	25	5.207	-34.472	-8.450	1.00 0.00
ATOM	218	CB LYS	25	6.492	-34.750	-7.656	1.00 0.00
ATOM	219	CG LYS	25	7.083	-36.141	-7.934	1.00 0.00
ATOM	220	CD LYS	25	8.619	-36.129	-7.864	1.00 0.00
ATOM	221	CE LYS	25	9.182	-35.722	-6.496	1.00 0.00
ATOM	222	NZ LYS	25	9.110	-36.814	-5.510	1.00 0.00
ATOM	223	C LYS	25	4.040	-35.370	-8.023	1.00 0.00
ATOM	224	O LYS	25	4.051	-36.549	-8.374	1.00 0.00
ATOM	225	N TYR	26	3.055	-34.859	-7.270	1.00 0.00
ATOM	226	CA TYR	26	1.931	-35.659	-6.777	1.00 0.00
ATOM	227	CB TYR	26	2.179	-35.992	-5.301	1.00 0.00
ATOM	228	CG TYR	26	3.498	-36.712	-5.107	1.00 0.00
ATOM	229	CD1 TYR	26	3.640	-38.037	-5.552	1.00 0.00
ATOM	230	CE1 TYR	26	4.867	-38.703	-5.402	1.00 0.00
ATOM	231	CZ TYR	26	5.952	-38.042	-4.804	1.00 0.00
ATOM	232	OH TYR	26	7.152	-38.675	-4.662	1.00 0.00
ATOM	233	CE2 TYR	26	5.813	-36.718	-4.360	1.00 0.00
ATOM	234	CD2 TYR	26	4.587	-36.053	-4.509	1.00 0.00
ATOM	235	C TYR	26	0.550	-35.037	-6.988	1.00 0.00
ATOM	236	O TYR	26	-0.446	-35.681	-6.665	1.00 0.00
ATOM	237	N GLY	27	0.475	-33.818	-7.531	1.00 0.00
ATOM	238	CA GLY	27	-0.771	-33.118	-7.802	1.00 0.00
ATOM	239	C GLY	27	-1.275	-32.333	-6.592	1.00 0.00
ATOM	240	O GLY	27	-0.959	-32.657	-5.448	1.00 0.00
ATOM	241	N GLU	28	-2.078	-31.295	-6.857	1.00 0.00
ATOM	242	CA GLU	28	-2.683	-30.467	-5.825	1.00 0.00
ATOM	243	CB GLU	28	-3.081	-29.101	-6.414	1.00 0.00
ATOM	244	CG GLU	28	-3.315	-28.063	-5.309	1.00 0.00
ATOM	245	CD GLU	28	-3.626	-26.666	-5.840	1.00 0.00
ATOM	246	OE1 GLU	28	-2.890	-26.199	-6.740	1.00 0.00
ATOM	247	OE2 GLU	28	-4.553	-26.025	-5.303	1.00 0.00
ATOM	248	C GLU	28	-3.879	-31.258	-5.284	1.00 0.00
ATOM	249	O GLU	28	-4.585	-31.905	-6.057	1.00 0.00
ATOM	250	N GLY	29	-4.099	-31.235	-3.966	1.00 0.00
ATOM	251	CA GLY	29	-5.183	-31.985	-3.342	1.00 0.00
ATOM	252	C GLY	29	-4.761	-33.424	-3.047	1.00 0.00
ATOM	253	O GLY	29	-5.583	-34.337	-3.081	1.00 0.00
ATOM	254	N ASN	30	-3.472	-33.615	-2.743	1.00 0.00
ATOM	255	CA ASN	30	-2.849	-34.890	-2.400	1.00 0.00
ATOM	256	CB ASN	30	-2.185	-35.501	-3.644	1.00 0.00
ATOM	257	CG ASN	30	-3.179	-35.733	-4.780	1.00 0.00
ATOM	258	OD1 ASN	30	-3.206	-34.989	-5.756	1.00 0.00
ATOM	259	ND2 ASN	30	-4.007	-36.771	-4.659	1.00 0.00
ATOM	260	C ASN	30	-1.826	-34.573	-1.311	1.00 0.00
ATOM	261	O ASN	30	-0.669	-34.988	-1.369	1.00 0.00
ATOM	262	N TRP	31	-2.266	-33.794	-0.323	1.00 0.00

(403)

特開2003-135087

803

804

ATOM	263	CA	TRP	31	-1.457	-33.310	0.778	1.00	0.00
ATOM	264	CB	TRP	31	-2.203	-32.190	1.492	1.00	0.00
ATOM	265	CG	TRP	31	-2.710	-31.175	0.530	1.00	0.00
ATOM	266	CD1	TRP	31	-3.997	-30.966	0.185	1.00	0.00
ATOM	267	NE1	TRP	31	-4.069	-29.949	-0.742	1.00	0.00
ATOM	268	CE2	TRP	31	-2.813	-29.460	-1.042	1.00	0.00
ATOM	269	CZ2	TRP	31	-2.350	-28.457	-1.901	1.00	0.00
ATOM	270	CH2	TRP	31	-0.969	-28.216	-1.978	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.072	-28.963	-1.203	1.00	0.00
ATOM	272	CE3	TRP	31	-0.547	-29.962	-0.342	1.00	0.00
ATOM	273	CD2	TRP	31	-1.926	-30.233	-0.241	1.00	0.00
ATOM	274	C	TRP	31	-1.042	-34.427	1.711	1.00	0.00
ATOM	275	O	TRP	31	0.103	-34.440	2.146	1.00	0.00
ATOM	276	N	SER	32	-1.943	-35.368	2.008	1.00	0.00
ATOM	277	CA	SER	32	-1.605	-36.497	2.864	1.00	0.00
ATOM	278	CB	SER	32	-2.825	-37.413	3.012	1.00	0.00
ATOM	279	OG	SER	32	-3.273	-37.869	1.750	1.00	0.00
ATOM	280	C	SER	32	-0.389	-37.224	2.274	1.00	0.00
ATOM	281	O	SER	32	0.582	-37.502	2.974	1.00	0.00
ATOM	282	N	LYS	33	-0.449	-37.500	0.966	1.00	0.00
ATOM	283	CA	LYS	33	0.599	-38.157	0.201	1.00	0.00
ATOM	284	CB	LYS	33	0.074	-38.390	-1.225	1.00	0.00
ATOM	285	CG	LYS	33	1.053	-39.161	-2.116	1.00	0.00
ATOM	286	CD	LYS	33	0.531	-39.309	-3.552	1.00	0.00
ATOM	287	CE	LYS	33	-0.690	-40.231	-3.667	1.00	0.00
ATOM	288	NZ	LYS	33	-1.147	-40.348	-5.066	1.00	0.00
ATOM	289	C	LYS	33	1.893	-37.333	0.240	1.00	0.00
ATOM	290	O	LYS	33	2.942	-37.853	0.623	1.00	0.00
ATOM	291	N	ILE	34	1.823	-36.052	-0.149	1.00	0.00
ATOM	292	CA	ILE	34	2.971	-35.144	-0.161	1.00	0.00
ATOM	293	CB	ILE	34	2.533	-33.741	-0.631	1.00	0.00
ATOM	294	CG2	ILE	34	3.631	-32.696	-0.391	1.00	0.00
ATOM	295	CG1	ILE	34	2.192	-33.778	-2.133	1.00	0.00
ATOM	296	CD1	ILE	34	1.347	-32.583	-2.588	1.00	0.00
ATOM	297	C	ILE	34	3.660	-35.120	1.209	1.00	0.00
ATOM	298	O	ILE	34	4.881	-35.236	1.282	1.00	0.00
ATOM	299	N	LEU	35	2.878	-34.982	2.285	1.00	0.00
ATOM	300	CA	LEU	35	3.354	-34.957	3.663	1.00	0.00
ATOM	301	CB	LEU	35	2.163	-34.656	4.591	1.00	0.00
ATOM	302	CG	LEU	35	2.500	-34.026	5.954	1.00	0.00
ATOM	303	CD1	LEU	35	1.181	-33.784	6.698	1.00	0.00
ATOM	304	CD2	LEU	35	3.418	-34.883	6.831	1.00	0.00
ATOM	305	C	LEU	35	4.028	-36.293	3.991	1.00	0.00
ATOM	306	O	LEU	35	5.081	-36.324	4.624	1.00	0.00
ATOM	307	N	LEU	36	3.435	-37.412	3.552	1.00	0.00
ATOM	308	CA	LEU	36	4.004	-38.730	3.798	1.00	0.00
ATOM	309	CB	LEU	36	3.103	-39.847	3.235	1.00	0.00
ATOM	310	CG	LEU	36	2.480	-40.762	4.303	1.00	0.00
ATOM	311	CD1	LEU	36	3.543	-41.548	5.081	1.00	0.00
ATOM	312	CD2	LEU	36	1.554	-39.999	5.259	1.00	0.00

(404)

特開2003-135087

805				806				
ATOM	313	C	LEU	36	5.418	-38.803	3.226	1.00 0.00
ATOM	314	O	LEU	36	6.338	-39.234	3.920	1.00 0.00
ATOM	315	N	HIS	37	5.598	-38.372	1.974	1.00 0.00
ATOM	316	CA	HIS	37	6.905	-38.376	1.337	1.00 0.00
ATOM	317	CB	HIS	37	6.778	-37.991	-0.145	1.00 0.00
ATOM	318	CG	HIS	37	5.935	-38.924	-0.970	1.00 0.00
ATOM	319	ND1	HIS	37	6.268	-40.253	-1.181	1.00 0.00
ATOM	320	CE1	HIS	37	5.308	-40.786	-1.956	1.00 0.00
ATOM	321	NE2	HIS	37	4.356	-39.908	-2.279	1.00 0.00
ATOM	322	CD2	HIS	37	4.758	-38.733	-1.652	1.00 0.00
ATOM	323	C	HIS	37	7.856	-37.398	2.033	1.00 0.00
ATOM	324	O	HIS	37	8.920	-37.793	2.515	1.00 0.00
ATOM	325	N	TYR	38	7.468	-36.120	2.051	1.00 0.00
ATOM	326	CA	TYR	38	8.236	-35.007	2.581	1.00 0.00
ATOM	327	CB	TYR	38	8.163	-33.865	1.565	1.00 0.00
ATOM	328	CG	TYR	38	8.736	-34.225	0.202	1.00 0.00
ATOM	329	CD1	TYR	38	7.963	-34.064	-0.964	1.00 0.00
ATOM	330	CE1	TYR	38	8.502	-34.398	-2.220	1.00 0.00
ATOM	331	CZ	TYR	38	9.814	-34.890	-2.313	1.00 0.00
ATOM	332	OH	TYR	38	10.344	-35.215	-3.529	1.00 0.00
ATOM	333	CE2	TYR	38	10.586	-35.054	-1.153	1.00 0.00
ATOM	334	CD2	TYR	38	10.049	-34.722	0.100	1.00 0.00
ATOM	335	C	TYR	38	7.754	-34.562	3.957	1.00 0.00
ATOM	336	O	TYR	38	6.642	-34.067	4.111	1.00 0.00
ATOM	337	N	LYS	39	8.619	-34.743	4.957	1.00 0.00
ATOM	338	CA	LYS	39	8.374	-34.408	6.348	1.00 0.00
ATOM	339	CB	LYS	39	9.104	-35.444	7.211	1.00 0.00
ATOM	340	CG	LYS	39	8.585	-36.870	6.937	1.00 0.00
ATOM	341	CD	LYS	39	9.762	-37.843	6.787	1.00 0.00
ATOM	342	CE	LYS	39	9.327	-39.247	6.343	1.00 0.00
ATOM	343	NZ	LYS	39	8.812	-39.274	4.959	1.00 0.00
ATOM	344	C	LYS	39	8.860	-32.979	6.613	1.00 0.00
ATOM	345	O	LYS	39	10.047	-32.753	6.840	1.00 0.00
ATOM	346	N	PHE	40	7.931	-32.019	6.573	1.00 0.00
ATOM	347	CA	PHE	40	8.189	-30.596	6.783	1.00 0.00
ATOM	348	CB	PHE	40	7.035	-29.811	6.152	1.00 0.00
ATOM	349	CG	PHE	40	6.822	-30.122	4.682	1.00 0.00
ATOM	350	CD1	PHE	40	5.885	-31.092	4.280	1.00 0.00
ATOM	351	CE1	PHE	40	5.709	-31.379	2.916	1.00 0.00
ATOM	352	CZ	PHE	40	6.464	-30.696	1.949	1.00 0.00
ATOM	353	CE2	PHE	40	7.397	-29.727	2.348	1.00 0.00
ATOM	354	CD2	PHE	40	7.576	-29.440	3.712	1.00 0.00
ATOM	355	C	PHE	40	8.369	-30.270	8.274	1.00 0.00
ATOM	356	O	PHE	40	8.296	-31.166	9.116	1.00 0.00
ATOM	357	N	ASN	41	8.608	-28.995	8.617	1.00 0.00
ATOM	358	CA	ASN	41	8.813	-28.572	10.003	1.00 0.00
ATOM	359	CB	ASN	41	9.553	-27.223	10.075	1.00 0.00
ATOM	360	CG	ASN	41	10.971	-27.280	9.509	1.00 0.00
ATOM	361	OD1	ASN	41	11.703	-28.236	9.752	1.00 0.00
ATOM	362	ND2	ASN	41	11.383	-26.251	8.768	1.00 0.00

807					808				
ATOM	363	C	ASN	41	7.485	-28.508	10.760	1.00	0.00
ATOM	364	O	ASN	41	6.973	-27.424	11.035	1.00	0.00
ATOM	365	N	ASN	42	6.939	-29.681	11.102	1.00	0.00
ATOM	366	CA	ASN	42	5.689	-29.839	11.838	1.00	0.00
ATOM	367	CB	ASN	42	5.889	-29.406	13.302	1.00	0.00
ATOM	368	CG	ASN	42	4.774	-29.901	14.222	1.00	0.00
ATOM	369	OD1	ASN	42	4.966	-30.855	14.973	1.00	0.00
ATOM	370	ND2	ASN	42	3.609	-29.258	14.187	1.00	0.00
ATOM	371	C	ASN	42	4.556	-29.095	11.125	1.00	0.00
ATOM	372	O	ASN	42	3.955	-28.175	11.680	1.00	0.00
ATOM	373	N	ARG	43	4.277	-29.500	9.882	1.00	0.00
ATOM	374	CA	ARG	43	3.244	-28.906	9.048	1.00	0.00
ATOM	375	CB	ARG	43	3.844	-28.413	7.728	1.00	0.00
ATOM	376	CG	ARG	43	5.103	-27.560	7.873	1.00	0.00
ATOM	377	CD	ARG	43	4.865	-26.262	8.642	1.00	0.00
ATOM	378	NE	ARG	43	6.042	-25.404	8.499	1.00	0.00
ATOM	379	CZ	ARG	43	6.162	-24.168	8.996	1.00	0.00
ATOM	380	NH1	ARG	43	7.328	-23.524	8.877	1.00	0.00
ATOM	381	NH2	ARG	43	5.135	-23.556	9.599	1.00	0.00
ATOM	382	C	ARG	43	2.170	-29.949	8.758	1.00	0.00
ATOM	383	O	ARG	43	2.447	-30.953	8.103	1.00	0.00
ATOM	384	N	THR	44	0.944	-29.708	9.226	1.00	0.00
ATOM	385	CA	THR	44	-0.182	-30.597	8.983	1.00	0.00
ATOM	386	CB	THR	44	-1.334	-30.258	9.941	1.00	0.00
ATOM	387	CG2	THR	44	-0.892	-30.281	11.408	1.00	0.00
ATOM	388	OG1	THR	44	-1.856	-28.983	9.615	1.00	0.00
ATOM	389	C	THR	44	-0.646	-30.404	7.539	1.00	0.00
ATOM	390	O	THR	44	-0.251	-29.437	6.883	1.00	0.00
ATOM	391	N	SER	45	-1.512	-31.293	7.038	1.00	0.00
ATOM	392	CA	SER	45	-2.033	-31.149	5.686	1.00	0.00
ATOM	393	CB	SER	45	-2.910	-32.346	5.300	1.00	0.00
ATOM	394	OG	SER	45	-4.266	-32.177	5.659	1.00	0.00
ATOM	395	C	SER	45	-2.740	-29.791	5.535	1.00	0.00
ATOM	396	O	SER	45	-2.760	-29.219	4.444	1.00	0.00
ATOM	397	N	VAL	46	-3.296	-29.272	6.641	1.00	0.00
ATOM	398	CA	VAL	46	-3.946	-27.976	6.702	1.00	0.00
ATOM	399	CB	VAL	46	-4.700	-27.803	8.034	1.00	0.00
ATOM	400	CG1	VAL	46	-5.248	-26.381	8.197	1.00	0.00
ATOM	401	CG2	VAL	46	-5.869	-28.795	8.109	1.00	0.00
ATOM	402	C	VAL	46	-2.874	-26.913	6.454	1.00	0.00
ATOM	403	O	VAL	46	-3.039	-26.108	5.542	1.00	0.00
ATOM	404	N	MET	47	-1.772	-26.924	7.224	1.00	0.00
ATOM	405	CA	MET	47	-0.691	-25.961	7.017	1.00	0.00
ATOM	406	CB	MET	47	0.494	-26.187	7.966	1.00	0.00
ATOM	407	CG	MET	47	0.164	-26.211	9.460	1.00	0.00
ATOM	408	SD	MET	47	-0.946	-24.943	10.117	1.00	0.00
ATOM	409	CE	MET	47	-0.864	-25.443	11.855	1.00	0.00
ATOM	410	C	MET	47	-0.198	-25.988	5.564	1.00	0.00
ATOM	411	O	MET	47	0.036	-24.931	4.981	1.00	0.00
ATOM	412	N	LEU	48	-0.048	-27.182	4.971	1.00	0.00

(406)

特開2003-135087

809

810

ATOM	413	CA	LEU	48	0.389	-27.321	3.583	1.00	0.00
ATOM	414	CB	LEU	48	0.491	-28.798	3.163	1.00	0.00
ATOM	415	CG	LEU	48	1.848	-29.446	3.473	1.00	0.00
ATOM	416	CD1	LEU	48	2.068	-29.715	4.961	1.00	0.00
ATOM	417	CD2	LEU	48	1.973	-30.777	2.735	1.00	0.00
ATOM	418	C	LEU	48	-0.578	-26.577	2.658	1.00	0.00
ATOM	419	O	LEU	48	-0.149	-25.777	1.827	1.00	0.00
ATOM	420	N	LYS	49	-1.883	-26.837	2.810	1.00	0.00
ATOM	421	CA	LYS	49	-2.910	-26.184	2.012	1.00	0.00
ATOM	422	CB	LYS	49	-4.300	-26.724	2.369	1.00	0.00
ATOM	423	CG	LYS	49	-4.512	-28.061	1.665	1.00	0.00
ATOM	424	CD	LYS	49	-5.880	-28.684	1.956	1.00	0.00
ATOM	425	CE	LYS	49	-6.001	-29.305	3.355	1.00	0.00
ATOM	426	NZ	LYS	49	-5.102	-30.460	3.550	1.00	0.00
ATOM	427	C	LYS	49	-2.855	-24.669	2.188	1.00	0.00
ATOM	428	O	LYS	49	-2.895	-23.943	1.202	1.00	0.00
ATOM	429	N	ASP	50	-2.762	-24.186	3.428	1.00	0.00
ATOM	430	CA	ASP	50	-2.696	-22.760	3.714	1.00	0.00
ATOM	431	CB	ASP	50	-2.611	-22.532	5.226	1.00	0.00
ATOM	432	CG	ASP	50	-3.858	-23.028	5.940	1.00	0.00
ATOM	433	OD1	ASP	50	-3.704	-23.678	6.995	1.00	0.00
ATOM	434	OD2	ASP	50	-4.959	-22.719	5.434	1.00	0.00
ATOM	435	C	ASP	50	-1.512	-22.130	2.987	1.00	0.00
ATOM	436	O	ASP	50	-1.685	-21.162	2.250	1.00	0.00
ATOM	437	N	ARG	51	-0.313	-22.691	3.188	1.00	0.00
ATOM	438	CA	ARG	51	0.912	-22.219	2.563	1.00	0.00
ATOM	439	CB	ARG	51	2.079	-23.155	2.928	1.00	0.00
ATOM	440	CG	ARG	51	3.406	-22.800	2.231	1.00	0.00
ATOM	441	CD	ARG	51	3.917	-21.425	2.665	1.00	0.00
ATOM	442	NE	ARG	51	5.193	-21.069	2.025	1.00	0.00
ATOM	443	CZ	ARG	51	5.761	-19.856	2.125	1.00	0.00
ATOM	444	NH1	ARG	51	5.203	-18.903	2.877	1.00	0.00
ATOM	445	NH2	ARG	51	6.888	-19.591	1.461	1.00	0.00
ATOM	446	C	ARG	51	0.739	-22.113	1.048	1.00	0.00
ATOM	447	O	ARG	51	0.960	-21.045	0.477	1.00	0.00
ATOM	448	N	TRP	52	0.355	-23.218	0.400	1.00	0.00
ATOM	449	CA	TRP	52	0.190	-23.259	-1.041	1.00	0.00
ATOM	450	CB	TRP	52	-0.098	-24.687	-1.490	1.00	0.00
ATOM	451	CG	TRP	52	-0.104	-24.890	-2.973	1.00	0.00
ATOM	452	CD1	TRP	52	-1.165	-25.323	-3.687	1.00	0.00
ATOM	453	NE1	TRP	52	-0.828	-25.418	-5.017	1.00	0.00
ATOM	454	CE2	TRP	52	0.476	-25.031	-5.234	1.00	0.00
ATOM	455	CZ2	TRP	52	1.260	-24.950	-6.393	1.00	0.00
ATOM	456	CH2	TRP	52	2.587	-24.511	-6.289	1.00	0.00
ATOM	457	CZ3	TRP	52	3.108	-24.163	-5.032	1.00	0.00
ATOM	458	CE3	TRP	52	2.315	-24.248	-3.872	1.00	0.00
ATOM	459	CD2	TRP	52	0.972	-24.686	-3.941	1.00	0.00
ATOM	460	C	TRP	52	-0.874	-22.284	-1.549	1.00	0.00
ATOM	461	O	TRP	52	-0.629	-21.585	-2.526	1.00	0.00
ATOM	462	N	ARG	53	-2.046	-22.227	-0.903	1.00	0.00

(407)

特開2003-135087

811

812

ATOM	463	CA	ARG	53	-3.124	-21.327	-1.297	1.00	0.00
ATOM	464	CB	ARG	53	-4.367	-21.537	-0.421	1.00	0.00
ATOM	465	CG	ARG	53	-5.096	-22.837	-0.797	1.00	0.00
ATOM	466	CD	ARG	53	-6.389	-23.028	0.004	1.00	0.00
ATOM	467	NE	ARG	53	-6.162	-23.092	1.458	1.00	0.00
ATOM	468	CZ	ARG	53	-7.156	-23.226	2.354	1.00	0.00
ATOM	469	NH1	ARG	53	-8.420	-23.363	1.939	1.00	0.00
ATOM	470	NH2	ARG	53	-6.913	-23.231	3.669	1.00	0.00
ATOM	471	C	ARG	53	-2.637	-19.879	-1.241	1.00	0.00
ATOM	472	O	ARG	53	-2.797	-19.139	-2.212	1.00	0.00
ATOM	473	N	THR	54	-2.024	-19.481	-0.118	1.00	0.00
ATOM	474	CA	THR	54	-1.481	-18.140	0.046	1.00	0.00
ATOM	475	CB	THR	54	-0.835	-17.996	1.431	1.00	0.00
ATOM	476	CG2	THR	54	-0.275	-16.586	1.649	1.00	0.00
ATOM	477	OG1	THR	54	-1.813	-18.248	2.419	1.00	0.00
ATOM	478	C	THR	54	-0.488	-17.866	-1.085	1.00	0.00
ATOM	479	O	THR	54	-0.556	-16.818	-1.720	1.00	0.00
ATOM	480	N	MET	55	0.420	-18.810	-1.353	1.00	0.00
ATOM	481	CA	MET	55	1.399	-18.672	-2.420	1.00	0.00
ATOM	482	CB	MET	55	2.338	-19.889	-2.438	1.00	0.00
ATOM	483	CG	MET	55	3.731	-19.547	-1.906	1.00	0.00
ATOM	484	SD	MET	55	4.605	-18.283	-2.874	1.00	0.00
ATOM	485	CE	MET	55	6.262	-18.500	-2.205	1.00	0.00
ATOM	486	C	MET	55	0.731	-18.489	-3.786	1.00	0.00
ATOM	487	O	MET	55	1.163	-17.655	-4.575	1.00	0.00
ATOM	488	N	LYS	56	-0.315	-19.259	-4.091	1.00	0.00
ATOM	489	CA	LYS	56	-1.004	-19.161	-5.368	1.00	0.00
ATOM	490	CB	LYS	56	-2.054	-20.276	-5.499	1.00	0.00
ATOM	491	CG	LYS	56	-1.390	-21.618	-5.822	1.00	0.00
ATOM	492	CD	LYS	56	-2.367	-22.800	-5.864	1.00	0.00
ATOM	493	CE	LYS	56	-3.639	-22.591	-6.691	1.00	0.00
ATOM	494	NZ	LYS	56	-4.347	-23.872	-6.893	1.00	0.00
ATOM	495	C	LYS	56	-1.645	-17.789	-5.588	1.00	0.00
ATOM	496	O	LYS	56	-1.733	-17.350	-6.735	1.00	0.00
ATOM	497	N	LYS	57	-2.102	-17.118	-4.520	1.00	0.00
ATOM	498	CA	LYS	57	-2.770	-15.825	-4.631	1.00	0.00
ATOM	499	CB	LYS	57	-3.212	-15.281	-3.259	1.00	0.00
ATOM	500	CG	LYS	57	-2.257	-14.270	-2.602	1.00	0.00
ATOM	501	CD	LYS	57	-2.779	-13.911	-1.206	1.00	0.00
ATOM	502	CE	LYS	57	-1.751	-13.087	-0.422	1.00	0.00
ATOM	503	NZ	LYS	57	-2.292	-12.640	0.876	1.00	0.00
ATOM	504	C	LYS	57	-2.005	-14.802	-5.477	1.00	0.00
ATOM	505	O	LYS	57	-2.626	-14.130	-6.298	1.00	0.00
ATOM	506	N	LEU	58	-0.680	-14.678	-5.298	1.00	0.00
ATOM	507	CA	LEU	58	0.130	-13.723	-6.057	1.00	0.00
ATOM	508	CB	LEU	58	1.073	-12.920	-5.137	1.00	0.00
ATOM	509	CG	LEU	58	2.455	-13.505	-4.790	1.00	0.00
ATOM	510	CD1	LEU	58	3.070	-12.693	-3.644	1.00	0.00
ATOM	511	CD2	LEU	58	2.400	-14.978	-4.393	1.00	0.00
ATOM	512	C	LEU	58	0.742	-14.324	-7.322	1.00	0.00

(408)

特開2003-135087

813

814

ATOM	513	O	LEU	58	1.855	-13.978	-7.713	1.00	0.00
ATOM	514	N	LYS	59	-0.016	-15.216	-7.968	1.00	0.00
ATOM	515	CA	LYS	59	0.351	-15.903	-9.192	1.00	0.00
ATOM	516	CB	LYS	59	0.172	-14.992	-10.417	1.00	0.00
ATOM	517	CG	LYS	59	0.175	-15.823	-11.711	1.00	0.00
ATOM	518	CD	LYS	59	0.079	-14.920	-12.943	1.00	0.00
ATOM	519	CE	LYS	59	0.149	-15.776	-14.214	1.00	0.00
ATOM	520	NZ	LYS	59	0.090	-14.949	-15.432	1.00	0.00
ATOM	521	C	LYS	59	1.748	-16.511	-9.086	1.00	0.00
ATOM	522	O	LYS	59	2.644	-16.189	-9.866	1.00	0.00
ATOM	523	N	LEU	60	1.913	-17.425	-8.128	1.00	0.00
ATOM	524	CA	LEU	60	3.174	-18.150	-7.989	1.00	0.00
ATOM	525	CB	LEU	60	3.244	-18.932	-6.666	1.00	0.00
ATOM	526	CG	LEU	60	4.360	-19.998	-6.692	1.00	0.00
ATOM	527	CD1	LEU	60	5.752	-19.354	-6.697	1.00	0.00
ATOM	528	CD2	LEU	60	4.208	-20.960	-5.514	1.00	0.00
ATOM	529	C	LEU	60	3.125	-19.098	-9.182	1.00	0.00
ATOM	530	O	LEU	60	3.974	-19.102	-10.070	1.00	0.00
ATOM	531	N	ILE	61	2.047	-19.879	-9.147	1.00	0.00
ATOM	532	CA	ILE	61	1.621	-20.856	-10.111	1.00	0.00
ATOM	533	CB	ILE	61	0.257	-21.404	-9.640	1.00	0.00
ATOM	534	CG2	ILE	61	-0.755	-20.320	-9.213	1.00	0.00
ATOM	535	CG1	ILE	61	-0.356	-22.246	-10.750	1.00	0.00
ATOM	536	CD1	ILE	61	-1.363	-23.273	-10.223	1.00	0.00
ATOM	537	C	ILE	61	1.602	-20.224	-11.509	1.00	0.00
ATOM	538	O	ILE	61	0.831	-19.306	-11.784	1.00	0.00
ATOM	539	N	SER	62	2.472	-20.737	-12.383	1.00	0.00
ATOM	540	CA	SER	62	2.643	-20.331	-13.766	1.00	0.00
ATOM	541	CB	SER	62	3.705	-19.227	-13.878	1.00	0.00
ATOM	542	OG	SER	62	3.261	-18.021	-13.288	1.00	0.00
ATOM	543	C	SER	62	3.076	-21.585	-14.525	1.00	0.00
ATOM	544	O	SER	62	3.778	-22.425	-13.961	1.00	0.00
ATOM	545	N	SER	63	2.653	-21.726	-15.786	1.00	0.00
ATOM	546	CA	SER	63	2.988	-22.893	-16.594	1.00	0.00
ATOM	547	CB	SER	63	2.539	-22.673	-18.045	1.00	0.00
ATOM	548	OG	SER	63	2.975	-23.749	-18.848	1.00	0.00
ATOM	549	C	SER	63	2.339	-24.138	-15.981	1.00	0.00
ATOM	550	O	SER	63	3.023	-25.117	-15.675	1.00	0.00
ATOM	551	N	ASP	64	1.018	-24.079	-15.790	1.00	0.00
ATOM	552	CA	ASP	64	0.199	-25.139	-15.217	1.00	0.00
ATOM	553	CB	ASP	64	-0.799	-24.503	-14.238	1.00	0.00
ATOM	554	CG	ASP	64	-1.645	-25.530	-13.491	1.00	0.00
ATOM	555	OD1	ASP	64	-2.804	-25.187	-13.175	1.00	0.00
ATOM	556	OD2	ASP	64	-1.118	-26.640	-13.256	1.00	0.00
ATOM	557	C	ASP	64	-0.503	-25.918	-16.334	1.00	0.00
ATOM	558	O	ASP	64	-0.524	-25.477	-17.482	1.00	0.00
ATOM	559	N	SER	65	-1.071	-27.078	-15.987	1.00	0.00
ATOM	560	CA	SER	65	-1.784	-27.975	-16.884	1.00	0.00
ATOM	561	CB	SER	65	-3.063	-27.318	-17.430	1.00	0.00
ATOM	562	OG	SER	65	-3.944	-28.299	-17.949	1.00	0.00

(409)

特開2003-135087

815					816				
ATOM	563	C	SER	65	-0.862	-28.481	-17.992	1.00	0.00
ATOM	564	O	SER	65	-0.934	-28.022	-19.130	1.00	0.00
ATOM	565	N	GLU	66	0.003	-29.442	-17.650	1.00	0.00
ATOM	566	CA	GLU	66	0.918	-30.052	-18.605	1.00	0.00
ATOM	567	CB	GLU	66	1.912	-30.967	-17.874	1.00	0.00
ATOM	568	CG	GLU	66	2.766	-30.138	-16.902	1.00	0.00
ATOM	569	CD	GLU	66	3.866	-30.937	-16.210	1.00	0.00
ATOM	570	OE1	GLU	66	4.566	-30.303	-15.388	1.00	0.00
ATOM	571	OE2	GLU	66	3.998	-32.143	-16.505	1.00	0.00
ATOM	572	C	GLU	66	0.094	-30.787	-19.668	1.00	0.00
ATOM	573	O	GLU	66	0.418	-30.728	-20.854	1.00	0.00
ATOM	574	N	ASP	67	-0.984	-31.445	-19.227	1.00	0.00
ATOM	575	CA	ASP	67	-1.935	-32.151	-20.068	1.00	0.00
ATOM	576	CB	ASP	67	-2.654	-33.229	-19.245	1.00	0.00
ATOM	577	CG	ASP	67	-1.692	-34.277	-18.696	1.00	0.00
ATOM	578	OD1	ASP	67	-1.172	-34.042	-17.583	1.00	0.00
ATOM	579	OD2	ASP	67	-1.500	-35.297	-19.392	1.00	0.00
ATOM	580	C	ASP	67	-2.942	-31.130	-20.609	1.00	0.00
ATOM	581	OT1	ASP	67	-3.528	-31.426	-21.673	1.00	0.00
ATOM	582	OT2	ASP	67	-3.263	-30.185	-19.849	1.00	0.00
ATOM	583	O5'	GUA	68	-7.665	-41.140	10.506	1.00	0.00
ATOM	584	C5'	GUA	68	-7.399	-41.815	9.294	1.00	0.00
ATOM	585	C4'	GUA	68	-7.603	-40.886	8.093	1.00	0.00
ATOM	586	O4'	GUA	68	-8.925	-40.385	8.052	1.00	0.00
ATOM	587	C1'	GUA	68	-8.931	-39.220	7.256	1.00	0.00
ATOM	588	N9	GUA	68	-10.147	-38.427	7.547	1.00	0.00
ATOM	589	C8	GUA	68	-10.640	-38.067	8.774	1.00	0.00
ATOM	590	N7	GUA	68	-11.747	-37.379	8.728	1.00	0.00
ATOM	591	C5	GUA	68	-12.010	-37.267	7.367	1.00	0.00
ATOM	592	C6	GUA	68	-13.078	-36.601	6.690	1.00	0.00
ATOM	593	O6	GUA	68	-14.028	-35.996	7.182	1.00	0.00
ATOM	594	N1	GUA	68	-12.954	-36.678	5.308	1.00	0.00
ATOM	595	C2	GUA	68	-11.937	-37.337	4.647	1.00	0.00
ATOM	596	N2	GUA	68	-11.930	-37.298	3.312	1.00	0.00
ATOM	597	N3	GUA	68	-10.943	-37.975	5.279	1.00	0.00
ATOM	598	C4	GUA	68	-11.034	-37.901	6.635	1.00	0.00
ATOM	599	C3'	GUA	68	-6.689	-39.649	8.109	1.00	0.00
ATOM	600	C2'	GUA	68	-7.670	-38.523	7.747	1.00	0.00
ATOM	601	O3'	GUA	68	-5.658	-39.866	7.153	1.00	0.00
ATOM	602	P	THY	69	-4.491	-38.791	6.823	1.00	0.00
ATOM	603	OP1	THY	69	-4.060	-38.154	8.087	1.00	0.00
ATOM	604	OP2	THY	69	-3.493	-39.442	5.946	1.00	0.00
ATOM	605	O5'	THY	69	-5.265	-37.691	5.942	1.00	0.00
ATOM	606	C5'	THY	69	-6.041	-38.078	4.824	1.00	0.00
ATOM	607	C4'	THY	69	-7.026	-36.981	4.418	1.00	0.00
ATOM	608	O4'	THY	69	-8.104	-36.716	5.283	1.00	0.00
ATOM	609	C1'	THY	69	-8.672	-35.500	4.861	1.00	0.00
ATOM	610	N1	THY	69	-9.611	-34.956	5.870	1.00	0.00
ATOM	611	C6	THY	69	-9.331	-35.091	7.207	1.00	0.00
ATOM	612	C5	THY	69	-10.138	-34.543	8.147	1.00	0.00

(410)

特開2003-135087

817

818

ATOM	613	C7	THY	69	-9.720	-34.742	9.593	1.00	0.00
ATOM	614	C4	THY	69	-11.336	-33.809	7.785	1.00	0.00
ATOM	615	O4	THY	69	-12.123	-33.283	8.566	1.00	0.00
ATOM	616	N3	THY	69	-11.558	-33.737	6.419	1.00	0.00
ATOM	617	C2	THY	69	-10.736	-34.257	5.432	1.00	0.00
ATOM	618	O2	THY	69	-11.005	-34.088	4.245	1.00	0.00
ATOM	619	C3'	THY	69	-6.391	-35.607	4.157	1.00	0.00
ATOM	620	C2'	THY	69	-7.410	-34.654	4.786	1.00	0.00
ATOM	621	O3'	THY	69	-6.222	-35.394	2.771	1.00	0.00
ATOM	622	P	THY	70	-5.552	-34.049	2.192	1.00	0.00
ATOM	623	OP1	THY	70	-5.134	-33.178	3.319	1.00	0.00
ATOM	624	OP2	THY	70	-4.569	-34.419	1.147	1.00	0.00
ATOM	625	O5'	THY	70	-6.782	-33.291	1.503	1.00	0.00
ATOM	626	C5'	THY	70	-7.478	-33.824	0.394	1.00	0.00
ATOM	627	C4'	THY	70	-8.653	-32.887	0.100	1.00	0.00
ATOM	628	O4'	THY	70	-9.438	-32.780	1.274	1.00	0.00
ATOM	629	C1'	THY	70	-9.921	-31.466	1.439	1.00	0.00
ATOM	630	N1	THY	70	-10.114	-31.203	2.893	1.00	0.00
ATOM	631	C6	THY	70	-9.083	-31.429	3.776	1.00	0.00
ATOM	632	C5	THY	70	-9.238	-31.241	5.112	1.00	0.00
ATOM	633	C7	THY	70	-8.033	-31.487	6.002	1.00	0.00
ATOM	634	C4	THY	70	-10.506	-30.821	5.668	1.00	0.00
ATOM	635	O4	THY	70	-10.738	-30.642	6.860	1.00	0.00
ATOM	636	N3	THY	70	-11.498	-30.632	4.723	1.00	0.00
ATOM	637	C2	THY	70	-11.358	-30.770	3.350	1.00	0.00
ATOM	638	O2	THY	70	-12.294	-30.494	2.603	1.00	0.00
ATOM	639	C3'	THY	70	-8.164	-31.470	-0.231	1.00	0.00
ATOM	640	C2'	THY	70	-8.823	-30.595	0.838	1.00	0.00
ATOM	641	O3'	THY	70	-8.507	-31.114	-1.556	1.00	0.00
ATOM	642	P	ADE	71	-7.947	-29.765	-2.244	1.00	0.00
ATOM	643	OP1	ADE	71	-6.617	-29.452	-1.667	1.00	0.00
ATOM	644	OP2	ADE	71	-8.107	-29.887	-3.708	1.00	0.00
ATOM	645	O5'	ADE	71	-8.981	-28.667	-1.709	1.00	0.00
ATOM	646	C5'	ADE	71	-10.342	-28.666	-2.089	1.00	0.00
ATOM	647	C4'	ADE	71	-11.102	-27.627	-1.256	1.00	0.00
ATOM	648	O4'	ADE	71	-11.323	-28.089	0.078	1.00	0.00
ATOM	649	C1'	ADE	71	-11.084	-27.010	0.958	1.00	0.00
ATOM	650	N9	ADE	71	-10.844	-27.393	2.368	1.00	0.00
ATOM	651	C8	ADE	71	-9.683	-27.875	2.907	1.00	0.00
ATOM	652	N7	ADE	71	-9.660	-27.958	4.203	1.00	0.00
ATOM	653	C5	ADE	71	-10.910	-27.473	4.560	1.00	0.00
ATOM	654	C6	ADE	71	-11.505	-27.238	5.810	1.00	0.00
ATOM	655	N6	ADE	71	-10.860	-27.498	6.948	1.00	0.00
ATOM	656	N1	ADE	71	-12.733	-26.690	5.852	1.00	0.00
ATOM	657	C2	ADE	71	-13.345	-26.408	4.702	1.00	0.00
ATOM	658	N3	ADE	71	-12.896	-26.587	3.462	1.00	0.00
ATOM	659	C4	ADE	71	-11.648	-27.128	3.455	1.00	0.00
ATOM	660	C3'	ADE	71	-10.305	-26.316	-1.118	1.00	0.00
ATOM	661	C2'	ADE	71	-9.807	-26.475	0.317	1.00	0.00
ATOM	662	O3'	ADE	71	-11.199	-25.234	-1.248	1.00	0.00

(411)

特開2003-135087

819

820

ATOM	663	P	GUA	72	-10.721	-23.706	-1.398	1.00	0.00
ATOM	664	OP1	GUA	72	-10.697	-23.349	-2.832	1.00	0.00
ATOM	665	OP2	GUA	72	-9.526	-23.477	-0.548	1.00	0.00
ATOM	666	O5'	GUA	72	-11.973	-22.988	-0.694	1.00	0.00
ATOM	667	C5'	GUA	72	-13.302	-23.197	-1.139	1.00	0.00
ATOM	668	C4'	GUA	72	-14.294	-22.789	-0.045	1.00	0.00
ATOM	669	O4'	GUA	72	-14.038	-23.520	1.148	1.00	0.00
ATOM	670	C1'	GUA	72	-13.757	-22.650	2.232	1.00	0.00
ATOM	671	N9	GUA	72	-12.666	-23.213	3.063	1.00	0.00
ATOM	672	C8	GUA	72	-11.468	-23.712	2.632	1.00	0.00
ATOM	673	N7	GUA	72	-10.642	-24.056	3.581	1.00	0.00
ATOM	674	C5	GUA	72	-11.362	-23.792	4.742	1.00	0.00
ATOM	675	C6	GUA	72	-10.999	-23.988	6.109	1.00	0.00
ATOM	676	O6	GUA	72	-9.943	-24.435	6.551	1.00	0.00
ATOM	677	N1	GUA	72	-12.009	-23.609	6.987	1.00	0.00
ATOM	678	C2	GUA	72	-13.234	-23.104	6.596	1.00	0.00
ATOM	679	N2	GUA	72	-14.085	-22.716	7.548	1.00	0.00
ATOM	680	N3	GUA	72	-13.577	-22.924	5.313	1.00	0.00
ATOM	681	C4	GUA	72	-12.604	-23.285	4.435	1.00	0.00
ATOM	682	C3'	GUA	72	-14.179	-21.308	0.318	1.00	0.00
ATOM	683	C2'	GUA	72	-13.285	-21.367	1.555	1.00	0.00
ATOM	684	O3'	GUA	72	-15.478	-20.809	0.584	1.00	0.00
ATOM	685	P	GUA	73	-15.775	-19.232	0.764	1.00	0.00
ATOM	686	OP1	GUA	73	-17.220	-19.007	0.538	1.00	0.00
ATOM	687	OP2	GUA	73	-14.781	-18.470	-0.023	1.00	0.00
ATOM	688	O5'	GUA	73	-15.467	-19.000	2.323	1.00	0.00
ATOM	689	C5'	GUA	73	-16.353	-19.478	3.313	1.00	0.00
ATOM	690	C4'	GUA	73	-15.754	-19.266	4.703	1.00	0.00
ATOM	691	O4'	GUA	73	-14.568	-20.025	4.856	1.00	0.00
ATOM	692	C1'	GUA	73	-13.742	-19.338	5.764	1.00	0.00
ATOM	693	N9	GUA	73	-12.356	-19.855	5.736	1.00	0.00
ATOM	694	C8	GUA	73	-11.523	-20.040	4.663	1.00	0.00
ATOM	695	N7	GUA	73	-10.365	-20.562	4.964	1.00	0.00
ATOM	696	C5	GUA	73	-10.423	-20.717	6.346	1.00	0.00
ATOM	697	C6	GUA	73	-9.454	-21.228	7.264	1.00	0.00
ATOM	698	O6	GUA	73	-8.333	-21.670	7.012	1.00	0.00
ATOM	699	N1	GUA	73	-9.905	-21.197	8.582	1.00	0.00
ATOM	700	C2	GUA	73	-11.153	-20.749	8.971	1.00	0.00
ATOM	701	N2	GUA	73	-11.448	-20.723	10.272	1.00	0.00
ATOM	702	N3	GUA	73	-12.063	-20.282	8.111	1.00	0.00
ATOM	703	C4	GUA	73	-11.638	-20.285	6.822	1.00	0.00
ATOM	704	C3'	GUA	73	-15.358	-17.807	4.995	1.00	0.00
ATOM	705	C2'	GUA	73	-13.846	-17.925	5.204	1.00	0.00
ATOM	706	O3'	GUA	73	-16.062	-17.392	6.153	1.00	0.00
ATOM	707	P	GUA	74	-15.918	-15.917	6.790	1.00	0.00
ATOM	708	OP1	GUA	74	-15.102	-15.078	5.884	1.00	0.00
ATOM	709	OP2	GUA	74	-17.260	-15.458	7.211	1.00	0.00
ATOM	710	O5'	GUA	74	-15.052	-16.234	8.110	1.00	0.00
ATOM	711	C5'	GUA	74	-15.600	-17.007	9.162	1.00	0.00
ATOM	712	C4'	GUA	74	-14.578	-17.218	10.281	1.00	0.00

821				822				
ATOM	713	O4'	GUA	74	-13.423	-17.860	9.768	1.00 0.00
ATOM	714	C1'	GUA	74	-12.275	-17.254	10.317	1.00 0.00
ATOM	715	N9	GUA	74	-11.114	-17.437	9.423	1.00 0.00
ATOM	716	C8	GUA	74	-11.037	-17.202	8.075	1.00 0.00
ATOM	717	N7	GUA	74	-9.867	-17.452	7.556	1.00 0.00
ATOM	718	C5	GUA	74	-9.108	-17.876	8.641	1.00 0.00
ATOM	719	C6	GUA	74	-7.742	-18.283	8.706	1.00 0.00
ATOM	720	O6	GUA	74	-6.930	-18.361	7.787	1.00 0.00
ATOM	721	N1	GUA	74	-7.347	-18.607	10.000	1.00 0.00
ATOM	722	C2	GUA	74	-8.174	-18.574	11.102	1.00 0.00
ATOM	723	N2	GUA	74	-7.650	-18.897	12.287	1.00 0.00
ATOM	724	N3	GUA	74	-9.457	-18.200	11.042	1.00 0.00
ATOM	725	C4	GUA	74	-9.862	-17.862	9.789	1.00 0.00
ATOM	726	C3'	GUA	74	-14.097	-15.907	10.925	1.00 0.00
ATOM	727	C2'	GUA	74	-12.682	-15.790	10.366	1.00 0.00
ATOM	728	O3'	GUA	74	-14.140	-16.074	12.331	1.00 0.00
ATOM	729	P	THY	75	-13.682	-14.927	13.366	1.00 0.00
ATOM	730	OP1	THY	75	-14.596	-14.958	14.529	1.00 0.00
ATOM	731	OP2	THY	75	-13.474	-13.663	12.625	1.00 0.00
ATOM	732	O5'	THY	75	-12.245	-15.482	13.832	1.00 0.00
ATOM	733	C5'	THY	75	-12.133	-16.718	14.511	1.00 0.00
ATOM	734	C4'	THY	75	-10.690	-16.953	14.961	1.00 0.00
ATOM	735	O4'	THY	75	-9.824	-16.967	13.839	1.00 0.00
ATOM	736	C1'	THY	75	-8.664	-16.211	14.113	1.00 0.00
ATOM	737	N1	THY	75	-8.074	-15.713	12.838	1.00 0.00
ATOM	738	C6	THY	75	-8.875	-15.097	11.902	1.00 0.00
ATOM	739	C5	THY	75	-8.386	-14.730	10.690	1.00 0.00
ATOM	740	C7	THY	75	-9.364	-14.039	9.757	1.00 0.00
ATOM	741	C4	THY	75	-7.010	-14.992	10.316	1.00 0.00
ATOM	742	O4	THY	75	-6.497	-14.747	9.227	1.00 0.00
ATOM	743	N3	THY	75	-6.265	-15.592	11.316	1.00 0.00
ATOM	744	C2	THY	75	-6.725	-15.961	12.570	1.00 0.00
ATOM	745	O2	THY	75	-5.955	-16.484	13.374	1.00 0.00
ATOM	746	C3'	THY	75	-10.186	-15.836	15.885	1.00 0.00
ATOM	747	C2'	THY	75	-9.215	-15.080	14.977	1.00 0.00
ATOM	748	O3'	THY	75	-9.565	-16.430	17.011	1.00 0.00
ATOM	749	P	THY	76	-8.959	-15.559	18.225	1.00 0.00
ATOM	750	OP1	THY	76	-9.080	-16.345	19.472	1.00 0.00
ATOM	751	OP2	THY	76	-9.505	-14.186	18.160	1.00 0.00
ATOM	752	O5'	THY	76	-7.409	-15.502	17.814	1.00 0.00
ATOM	753	C5'	THY	76	-6.599	-16.659	17.868	1.00 0.00
ATOM	754	C4'	THY	76	-5.159	-16.291	17.508	1.00 0.00
ATOM	755	O4'	THY	76	-5.090	-15.871	16.155	1.00 0.00
ATOM	756	C1'	THY	76	-4.287	-14.714	16.068	1.00 0.00
ATOM	757	N1	THY	76	-4.540	-14.013	14.775	1.00 0.00
ATOM	758	C6	THY	76	-5.713	-13.328	14.557	1.00 0.00
ATOM	759	C5	THY	76	-5.975	-12.747	13.360	1.00 0.00
ATOM	760	C7	THY	76	-7.308	-12.030	13.252	1.00 0.00
ATOM	761	C4	THY	76	-5.039	-12.816	12.257	1.00 0.00
ATOM	762	O4	THY	76	-5.194	-12.295	11.159	1.00 0.00

823					824				
ATOM	763	N3	THY	76	-3.908	-13.571	12.527	1.00	0.00
ATOM	764	C2	THY	76	-3.620	-14.190	13.735	1.00	0.00
ATOM	765	O2	THY	76	-2.604	-14.878	13.843	1.00	0.00
ATOM	766	C3'	THY	76	-4.648	-15.111	18.348	1.00	0.00
ATOM	767	C2'	THY	76	-4.692	-13.961	17.339	1.00	0.00
ATOM	768	O3'	THY	76	-3.324	-15.386	18.753	1.00	0.00
ATOM	769	P	ADE	77	-2.690	-14.730	20.081	1.00	0.00
ATOM	770	OP1	ADE	77	-3.182	-13.342	20.217	1.00	0.00
ATOM	771	OP2	ADE	77	-2.843	-15.693	21.195	1.00	0.00
ATOM	772	O5'	ADE	77	-1.148	-14.674	19.659	1.00	0.00
ATOM	773	C5'	ADE	77	-0.380	-15.853	19.544	1.00	0.00
ATOM	774	C4'	ADE	77	0.837	-15.574	18.664	1.00	0.00
ATOM	775	O4'	ADE	77	0.381	-15.238	17.359	1.00	0.00
ATOM	776	C1'	ADE	77	0.931	-14.009	16.927	1.00	0.00
ATOM	777	N9	ADE	77	-0.074	-13.261	16.132	1.00	0.00
ATOM	778	C8	ADE	77	-1.291	-12.782	16.553	1.00	0.00
ATOM	779	N7	ADE	77	-1.954	-12.114	15.653	1.00	0.00
ATOM	780	C5	ADE	77	-1.121	-12.158	14.544	1.00	0.00
ATOM	781	C6	ADE	77	-1.241	-11.628	13.247	1.00	0.00
ATOM	782	N6	ADE	77	-2.285	-10.881	12.885	1.00	0.00
ATOM	783	N1	ADE	77	-0.260	-11.867	12.357	1.00	0.00
ATOM	784	C2	ADE	77	0.792	-12.587	12.744	1.00	0.00
ATOM	785	N3	ADE	77	1.029	-13.132	13.936	1.00	0.00
ATOM	786	C4	ADE	77	0.018	-12.875	14.811	1.00	0.00
ATOM	787	C3'	ADE	77	1.666	-14.390	19.179	1.00	0.00
ATOM	788	C2'	ADE	77	1.256	-13.269	18.224	1.00	0.00
ATOM	789	O3'	ADE	77	3.033	-14.747	19.131	1.00	0.00
ATOM	790	P	GUA	78	4.210	-13.725	19.525	1.00	0.00
ATOM	791	OP1	GUA	78	3.694	-12.662	20.419	1.00	0.00
ATOM	792	OP2	GUA	78	5.417	-14.483	19.912	1.00	0.00
ATOM	793	O5'	GUA	78	4.482	-13.050	18.102	1.00	0.00
ATOM	794	C5'	GUA	78	4.911	-13.831	17.008	1.00	0.00
ATOM	795	C4'	GUA	78	5.004	-12.963	15.762	1.00	0.00
ATOM	796	O4'	GUA	78	3.754	-12.390	15.448	1.00	0.00
ATOM	797	C1'	GUA	78	3.989	-11.168	14.786	1.00	0.00
ATOM	798	N9	GUA	78	2.748	-10.363	14.815	1.00	0.00
ATOM	799	C8	GUA	78	1.923	-10.130	15.883	1.00	0.00
ATOM	800	N7	GUA	78	0.825	-9.495	15.586	1.00	0.00
ATOM	801	C5	GUA	78	0.938	-9.263	14.220	1.00	0.00
ATOM	802	C6	GUA	78	0.047	-8.602	13.321	1.00	0.00
ATOM	803	O6	GUA	78	-1.043	-8.092	13.569	1.00	0.00
ATOM	804	N1	GUA	78	0.538	-8.561	12.021	1.00	0.00
ATOM	805	C2	GUA	78	1.743	-9.099	11.623	1.00	0.00
ATOM	806	N2	GUA	78	2.114	-8.916	10.356	1.00	0.00
ATOM	807	N3	GUA	78	2.578	-9.732	12.460	1.00	0.00
ATOM	808	C4	GUA	78	2.120	-9.778	13.740	1.00	0.00
ATOM	809	C3'	GUA	78	5.966	-11.790	15.971	1.00	0.00
ATOM	810	C2'	GUA	78	5.089	-10.572	15.659	1.00	0.00
ATOM	811	O3'	GUA	78	7.050	-11.988	15.089	1.00	0.00
ATOM	812	P	GUA	79	8.372	-11.078	15.123	1.00	0.00

825				826				
ATOM	813	OP1	GUA	79	8.498	-10.475	16.467	1.00 0.00
ATOM	814	OP2	GUA	79	9.476	-11.904	14.580	1.00 0.00
ATOM	815	O5'	GUA	79	7.995	-9.927	14.064	1.00 0.00
ATOM	816	C5'	GUA	79	7.828	-10.228	12.692	1.00 0.00
ATOM	817	C4'	GUA	79	7.149	-9.070	11.958	1.00 0.00
ATOM	818	O4'	GUA	79	5.865	-8.806	12.497	1.00 0.00
ATOM	819	C1'	GUA	79	5.568	-7.451	12.247	1.00 0.00
ATOM	820	N9	GUA	79	4.429	-7.000	13.079	1.00 0.00
ATOM	821	C8	GUA	79	4.251	-7.153	14.431	1.00 0.00
ATOM	822	N7	GUA	79	3.104	-6.722	14.875	1.00 0.00
ATOM	823	C5	GUA	79	2.473	-6.231	13.738	1.00 0.00
ATOM	824	C6	GUA	79	1.181	-5.644	13.585	1.00 0.00
ATOM	825	O6	GUA	79	0.332	-5.434	14.449	1.00 0.00
ATOM	826	N1	GUA	79	0.907	-5.298	12.267	1.00 0.00
ATOM	827	C2	GUA	79	1.778	-5.479	11.213	1.00 0.00
ATOM	828	N2	GUA	79	1.386	-5.060	10.009	1.00 0.00
ATOM	829	N3	GUA	79	2.995	-6.025	11.354	1.00 0.00
ATOM	830	C4	GUA	79	3.281	-6.385	12.635	1.00 0.00
ATOM	831	C3'	GUA	79	7.917	-7.740	12.046	1.00 0.00
ATOM	832	C2'	GUA	79	6.880	-6.800	12.670	1.00 0.00
ATOM	833	O3'	GUA	79	8.313	-7.370	10.736	1.00 0.00
ATOM	834	P	GUA	80	9.151	-6.027	10.422	1.00 0.00
ATOM	835	OP1	GUA	80	9.799	-5.563	11.668	1.00 0.00
ATOM	836	OP2	GUA	80	9.967	-6.262	9.210	1.00 0.00
ATOM	837	O5'	GUA	80	7.980	-4.993	10.044	1.00 0.00
ATOM	838	C5'	GUA	80	7.208	-5.169	8.871	1.00 0.00
ATOM	839	C4'	GUA	80	6.115	-4.105	8.790	1.00 0.00
ATOM	840	O4'	GUA	80	5.249	-4.221	9.903	1.00 0.00
ATOM	841	C1'	GUA	80	4.846	-2.926	10.286	1.00 0.00
ATOM	842	N9	GUA	80	4.303	-2.938	11.660	1.00 0.00
ATOM	843	C8	GUA	80	4.902	-3.374	12.812	1.00 0.00
ATOM	844	N7	GUA	80	4.143	-3.305	13.869	1.00 0.00
ATOM	845	C5	GUA	80	2.945	-2.790	13.385	1.00 0.00
ATOM	846	C6	GUA	80	1.713	-2.529	14.060	1.00 0.00
ATOM	847	O6	GUA	80	1.447	-2.693	15.247	1.00 0.00
ATOM	848	N1	GUA	80	0.728	-2.064	13.198	1.00 0.00
ATOM	849	C2	GUA	80	0.897	-1.863	11.845	1.00 0.00
ATOM	850	N2	GUA	80	-0.151	-1.417	11.149	1.00 0.00
ATOM	851	N3	GUA	80	2.053	-2.099	11.209	1.00 0.00
ATOM	852	C4	GUA	80	3.033	-2.566	12.032	1.00 0.00
ATOM	853	C3'	GUA	80	6.662	-2.668	8.834	1.00 0.00
ATOM	854	C2'	GUA	80	6.160	-2.158	10.181	1.00 0.00
ATOM	855	O3'	GUA	80	6.098	-1.893	7.797	1.00 0.00
ATOM	856	O5'	CYT	81	-8.025	0.634	16.181	1.00 0.00
ATOM	857	C5'	CYT	81	-7.714	1.572	15.170	1.00 0.00
ATOM	858	C4'	CYT	81	-6.723	0.980	14.162	1.00 0.00
ATOM	859	O4'	CYT	81	-5.544	0.535	14.799	1.00 0.00
ATOM	860	C1'	CYT	81	-4.894	-0.328	13.893	1.00 0.00
ATOM	861	N1	CYT	81	-3.880	-1.173	14.570	1.00 0.00
ATOM	862	C6	CYT	81	-4.177	-1.775	15.767	1.00 0.00

827				828					
ATOM	863	C5	CYT	81	-3.307	-2.612	16.375	1.00	0.00
ATOM	864	C4	CYT	81	-2.050	-2.832	15.719	1.00	0.00
ATOM	865	N4	CYT	81	-1.135	-3.638	16.258	1.00	0.00
ATOM	866	N3	CYT	81	-1.776	-2.256	14.541	1.00	0.00
ATOM	867	C2	CYT	81	-2.671	-1.436	13.926	1.00	0.00
ATOM	868	O2	CYT	81	-2.402	-0.956	12.828	1.00	0.00
ATOM	869	C3'	CYT	81	-7.256	-0.256	13.421	1.00	0.00
ATOM	870	C2'	CYT	81	-6.044	-1.189	13.393	1.00	0.00
ATOM	871	O3'	CYT	81	-7.708	0.126	12.133	1.00	0.00
ATOM	872	P	CYT	82	-8.302	-0.934	11.065	1.00	0.00
ATOM	873	OP1	CYT	82	-9.249	-0.215	10.185	1.00	0.00
ATOM	874	OP2	CYT	82	-8.749	-2.136	11.803	1.00	0.00
ATOM	875	O5'	CYT	82	-7.006	-1.339	10.190	1.00	0.00
ATOM	876	C5'	CYT	82	-6.367	-0.403	9.342	1.00	0.00
ATOM	877	C4'	CYT	82	-5.162	-1.041	8.637	1.00	0.00
ATOM	878	O4'	CYT	82	-4.227	-1.498	9.594	1.00	0.00
ATOM	879	C1'	CYT	82	-3.712	-2.761	9.220	1.00	0.00
ATOM	880	N1	CYT	82	-3.386	-3.499	10.464	1.00	0.00
ATOM	881	C6	CYT	82	-4.352	-3.622	11.424	1.00	0.00
ATOM	882	C5	CYT	82	-4.124	-4.244	12.594	1.00	0.00
ATOM	883	C4	CYT	82	-2.808	-4.776	12.798	1.00	0.00
ATOM	884	N4	CYT	82	-2.519	-5.443	13.917	1.00	0.00
ATOM	885	N3	CYT	82	-1.860	-4.657	11.855	1.00	0.00
ATOM	886	C2	CYT	82	-2.115	-4.032	10.668	1.00	0.00
ATOM	887	O2	CYT	82	-1.238	-3.965	9.809	1.00	0.00
ATOM	888	C3'	CYT	82	-5.542	-2.256	7.778	1.00	0.00
ATOM	889	C2'	CYT	82	-4.889	-3.425	8.505	1.00	0.00
ATOM	890	O3'	CYT	82	-5.046	-2.054	6.461	1.00	0.00
ATOM	891	P	CYT	83	-5.366	-3.061	5.240	1.00	0.00
ATOM	892	OP1	CYT	83	-6.581	-3.836	5.576	1.00	0.00
ATOM	893	OP2	CYT	83	-5.312	-2.288	3.979	1.00	0.00
ATOM	894	O5'	CYT	83	-4.108	-4.067	5.266	1.00	0.00
ATOM	895	C5'	CYT	83	-2.841	-3.682	4.762	1.00	0.00
ATOM	896	C4'	CYT	83	-1.800	-4.752	5.103	1.00	0.00
ATOM	897	O4'	CYT	83	-1.809	-4.959	6.500	1.00	0.00
ATOM	898	C1'	CYT	83	-1.267	-6.227	6.784	1.00	0.00
ATOM	899	N1	CYT	83	-1.824	-6.717	8.070	1.00	0.00
ATOM	900	C6	CYT	83	-3.156	-6.542	8.332	1.00	0.00
ATOM	901	C5	CYT	83	-3.695	-6.854	9.531	1.00	0.00
ATOM	902	C4	CYT	83	-2.805	-7.412	10.510	1.00	0.00
ATOM	903	N4	CYT	83	-3.260	-7.747	11.719	1.00	0.00
ATOM	904	N3	CYT	83	-1.513	-7.635	10.231	1.00	0.00
ATOM	905	C2	CYT	83	-0.989	-7.310	9.013	1.00	0.00
ATOM	906	O2	CYT	83	0.187	-7.561	8.763	1.00	0.00
ATOM	907	C3'	CYT	83	-2.106	-6.127	4.492	1.00	0.00
ATOM	908	C2'	CYT	83	-1.751	-7.095	5.626	1.00	0.00
ATOM	909	O3'	CYT	83	-1.336	-6.339	3.318	1.00	0.00
ATOM	910	P	THY	84	-1.477	-7.677	2.413	1.00	0.00
ATOM	911	OP1	THY	84	-0.834	-7.425	1.105	1.00	0.00
ATOM	912	OP2	THY	84	-2.881	-8.141	2.460	1.00	0.00

(416)

特開2003-135087

829				830					
ATOM	913	O5'	THY	84	-0.578	-8.753	3.206	1.00	0.00
ATOM	914	C5'	THY	84	0.834	-8.656	3.235	1.00	0.00
ATOM	915	C4'	THY	84	1.422	-9.608	4.283	1.00	0.00
ATOM	916	O4'	THY	84	1.037	-9.258	5.598	1.00	0.00
ATOM	917	C1'	THY	84	1.236	-10.370	6.456	1.00	0.00
ATOM	918	N1	THY	84	0.087	-10.555	7.384	1.00	0.00
ATOM	919	C6	THY	84	-1.202	-10.307	6.972	1.00	0.00
ATOM	920	C5	THY	84	-2.236	-10.375	7.848	1.00	0.00
ATOM	921	C7	THY	84	-3.623	-10.122	7.287	1.00	0.00
ATOM	922	C4	THY	84	-2.023	-10.681	9.248	1.00	0.00
ATOM	923	O4	THY	84	-2.885	-10.652	10.121	1.00	0.00
ATOM	924	N3	THY	84	-0.720	-11.037	9.558	1.00	0.00
ATOM	925	C2	THY	84	0.346	-11.031	8.671	1.00	0.00
ATOM	926	O2	THY	84	1.448	-11.446	9.021	1.00	0.00
ATOM	927	C3'	THY	84	0.903	-11.037	4.171	1.00	0.00
ATOM	928	C2'	THY	84	1.399	-11.566	5.515	1.00	0.00
ATOM	929	O3'	THY	84	1.463	-11.703	3.055	1.00	0.00
ATOM	930	P	ADE	85	0.955	-13.162	2.603	1.00	0.00
ATOM	931	OP1	ADE	85	-0.521	-13.179	2.705	1.00	0.00
ATOM	932	OP2	ADE	85	1.593	-13.508	1.315	1.00	0.00
ATOM	933	O5'	ADE	85	1.542	-14.131	3.738	1.00	0.00
ATOM	934	C5'	ADE	85	2.932	-14.241	3.958	1.00	0.00
ATOM	935	C4'	ADE	85	3.188	-14.985	5.271	1.00	0.00
ATOM	936	O4'	ADE	85	2.324	-14.511	6.296	1.00	0.00
ATOM	937	C1'	ADE	85	1.488	-15.545	6.787	1.00	0.00
ATOM	938	N9	ADE	85	0.119	-15.021	7.034	1.00	0.00
ATOM	939	C8	ADE	85	-0.821	-14.621	6.113	1.00	0.00
ATOM	940	N7	ADE	85	-1.919	-14.148	6.627	1.00	0.00
ATOM	941	C5	ADE	85	-1.696	-14.237	7.993	1.00	0.00
ATOM	942	C6	ADE	85	-2.487	-13.892	9.102	1.00	0.00
ATOM	943	N6	ADE	85	-3.715	-13.395	8.955	1.00	0.00
ATOM	944	N1	ADE	85	-1.993	-14.084	10.338	1.00	0.00
ATOM	945	C2	ADE	85	-0.775	-14.607	10.460	1.00	0.00
ATOM	946	N3	ADE	85	0.063	-14.991	9.499	1.00	0.00
ATOM	947	C4	ADE	85	-0.459	-14.767	8.261	1.00	0.00
ATOM	948	C3'	ADE	85	2.921	-16.483	5.147	1.00	0.00
ATOM	949	C2'	ADE	85	1.504	-16.609	5.690	1.00	0.00
ATOM	950	O3'	ADE	85	3.877	-17.156	5.939	1.00	0.00
ATOM	951	P	ADE	86	4.026	-18.750	5.914	1.00	0.00
ATOM	952	OP1	ADE	86	5.468	-19.056	6.024	1.00	0.00
ATOM	953	OP2	ADE	86	3.267	-19.274	4.755	1.00	0.00
ATOM	954	O5'	ADE	86	3.295	-19.203	7.264	1.00	0.00
ATOM	955	C5'	ADE	86	3.896	-18.935	8.511	1.00	0.00
ATOM	956	C4'	ADE	86	2.944	-19.257	9.652	1.00	0.00
ATOM	957	O4'	ADE	86	1.760	-18.504	9.493	1.00	0.00
ATOM	958	C1'	ADE	86	0.652	-19.297	9.839	1.00	0.00
ATOM	959	N9	ADE	86	-0.539	-18.745	9.154	1.00	0.00
ATOM	960	C8	ADE	86	-0.793	-18.700	7.805	1.00	0.00
ATOM	961	N7	ADE	86	-1.887	-18.071	7.480	1.00	0.00
ATOM	962	C5	ADE	86	-2.399	-17.665	8.705	1.00	0.00

831				832					
ATOM	963	C6	ADE	86	-3.563	-16.958	9.064	1.00	0.00
ATOM	964	N6	ADE	86	-4.445	-16.518	8.164	1.00	0.00
ATOM	965	N1	ADE	86	-3.777	-16.691	10.365	1.00	0.00
ATOM	966	C2	ADE	86	-2.889	-17.110	11.260	1.00	0.00
ATOM	967	N3	ADE	86	-1.767	-17.794	11.059	1.00	0.00
ATOM	968	C4	ADE	86	-1.575	-18.048	9.735	1.00	0.00
ATOM	969	C3'	ADE	86	2.546	-20.738	9.706	1.00	0.00
ATOM	970	C2'	ADE	86	1.067	-20.675	9.320	1.00	0.00
ATOM	971	O3'	ADE	86	2.802	-21.220	11.015	1.00	0.00
ATOM	972	P	CYT	87	2.484	-22.732	11.477	1.00	0.00
ATOM	973	OP1	CYT	87	2.433	-23.590	10.268	1.00	0.00
ATOM	974	OP2	CYT	87	3.433	-23.074	12.558	1.00	0.00
ATOM	975	O5'	CYT	87	1.009	-22.551	12.120	1.00	0.00
ATOM	976	C5'	CYT	87	0.867	-21.811	13.323	1.00	0.00
ATOM	977	C4'	CYT	87	-0.518	-21.198	13.543	1.00	0.00
ATOM	978	O4'	CYT	87	-1.092	-20.709	12.351	1.00	0.00
ATOM	979	C1'	CYT	87	-2.497	-20.751	12.478	1.00	0.00
ATOM	980	N1	CYT	87	-3.139	-20.729	11.141	1.00	0.00
ATOM	981	C6	CYT	87	-2.542	-21.358	10.079	1.00	0.00
ATOM	982	C5	CYT	87	-3.014	-21.217	8.820	1.00	0.00
ATOM	983	C4	CYT	87	-4.187	-20.411	8.648	1.00	0.00
ATOM	984	N4	CYT	87	-4.726	-20.224	7.444	1.00	0.00
ATOM	985	N3	CYT	87	-4.794	-19.846	9.701	1.00	0.00
ATOM	986	C2	CYT	87	-4.308	-19.998	10.963	1.00	0.00
ATOM	987	O2	CYT	87	-4.904	-19.492	11.912	1.00	0.00
ATOM	988	C3'	CYT	87	-1.580	-22.086	14.206	1.00	0.00
ATOM	989	C2'	CYT	87	-2.695	-22.087	13.166	1.00	0.00
ATOM	990	O3'	CYT	87	-1.968	-21.417	15.403	1.00	0.00
ATOM	991	P	CYT	88	-2.747	-22.130	16.622	1.00	0.00
ATOM	992	OP1	CYT	88	-2.203	-23.492	16.793	1.00	0.00
ATOM	993	OP2	CYT	88	-2.706	-21.178	17.761	1.00	0.00
ATOM	994	O5'	CYT	88	-4.268	-22.226	16.113	1.00	0.00
ATOM	995	C5'	CYT	88	-5.197	-21.196	16.399	1.00	0.00
ATOM	996	C4'	CYT	88	-6.491	-21.380	15.603	1.00	0.00
ATOM	997	O4'	CYT	88	-6.227	-21.339	14.220	1.00	0.00
ATOM	998	C1'	CYT	88	-7.348	-21.892	13.573	1.00	0.00
ATOM	999	N1	CYT	88	-7.003	-22.274	12.186	1.00	0.00
ATOM	1000	C6	CYT	88	-5.817	-22.904	11.921	1.00	0.00
ATOM	1001	C5	CYT	88	-5.425	-23.190	10.663	1.00	0.00
ATOM	1002	C4	CYT	88	-6.330	-22.817	9.607	1.00	0.00
ATOM	1003	N4	CYT	88	-6.039	-23.032	8.327	1.00	0.00
ATOM	1004	N3	CYT	88	-7.520	-22.265	9.883	1.00	0.00
ATOM	1005	C2	CYT	88	-7.893	-21.996	11.161	1.00	0.00
ATOM	1006	O2	CYT	88	-9.006	-21.533	11.388	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.213	-22.720	15.823	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.638	-23.127	14.412	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.300	-22.515	16.711	1.00	0.00
ATOM	1010	P	CYT	89	-9.357	-23.678	17.094	1.00	0.00
ATOM	1011	OP1	CYT	89	-8.741	-24.991	16.799	1.00	0.00
ATOM	1012	OP2	CYT	89	-9.878	-23.398	18.449	1.00	0.00

(418)

特開2003-135087

833

834

ATOM	1013	05'	CYT	89	-10.550	-23.436	16.032	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.353	-22.268	16.075	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.391	-22.287	14.945	1.00	0.00
ATOM	1016	04'	CYT	89	-11.740	-22.371	13.693	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.506	-23.150	12.796	1.00	0.00
ATOM	1018	N1	CYT	89	-11.583	-23.798	11.834	1.00	0.00
ATOM	1019	C6	CYT	89	-10.418	-24.344	12.299	1.00	0.00
ATOM	1020	C5	CYT	89	-9.472	-24.826	11.471	1.00	0.00
ATOM	1021	C4	CYT	89	-9.757	-24.753	10.061	1.00	0.00
ATOM	1022	N4	CYT	89	-8.862	-25.167	9.163	1.00	0.00
ATOM	1023	N3	CYT	89	-10.933	-24.291	9.612	1.00	0.00
ATOM	1024	C2	CYT	89	-11.879	-23.820	10.474	1.00	0.00
ATOM	1025	02	CYT	89	-12.961	-23.429	10.043	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.345	-23.490	15.021	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.129	-24.209	13.694	1.00	0.00
ATOM	1028	03'	CYT	89	-14.672	-23.016	15.201	1.00	0.00
ATOM	1029	P	THY	90	-15.964	-23.990	15.252	1.00	0.00
ATOM	1030	OP1	THY	90	-15.512	-25.362	15.571	1.00	0.00
ATOM	1031	OP2	THY	90	-16.997	-23.340	16.090	1.00	0.00
ATOM	1032	05'	THY	90	-16.476	-23.973	13.724	1.00	0.00
ATOM	1033	C5'	THY	90	-16.922	-22.777	13.112	1.00	0.00
ATOM	1034	C4'	THY	90	-17.263	-23.026	11.640	1.00	0.00
ATOM	1035	04'	THY	90	-16.138	-23.584	10.988	1.00	0.00
ATOM	1036	C1'	THY	90	-16.546	-24.590	10.086	1.00	0.00
ATOM	1037	N1	THY	90	-15.414	-25.542	9.923	1.00	0.00
ATOM	1038	C6	THY	90	-14.840	-26.107	11.036	1.00	0.00
ATOM	1039	C5	THY	90	-13.708	-26.845	10.949	1.00	0.00
ATOM	1040	C7	THY	90	-13.171	-27.431	12.241	1.00	0.00
ATOM	1041	C4	THY	90	-13.046	-27.061	9.682	1.00	0.00
ATOM	1042	04	THY	90	-12.002	-27.688	9.532	1.00	0.00
ATOM	1043	N3	THY	90	-13.695	-26.488	8.598	1.00	0.00
ATOM	1044	C2	THY	90	-14.879	-25.764	8.652	1.00	0.00
ATOM	1045	02	THY	90	-15.414	-25.376	7.618	1.00	0.00
ATOM	1046	C3'	THY	90	-18.421	-24.017	11.449	1.00	0.00
ATOM	1047	C2'	THY	90	-17.742	-25.224	10.800	1.00	0.00
ATOM	1048	03'	THY	90	-19.405	-23.416	10.621	1.00	0.00
ATOM	1049	P	ADE	91	-20.852	-24.086	10.367	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.194	-24.930	11.533	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.782	-23.020	9.934	1.00	0.00
ATOM	1052	05'	ADE	91	-20.577	-25.053	9.112	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.428	-24.530	7.808	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.894	-25.606	6.860	1.00	0.00
ATOM	1055	04'	ADE	91	-18.631	-26.069	7.282	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.403	-27.285	6.613	1.00	0.00
ATOM	1057	N9	ADE	91	-17.304	-28.016	7.268	1.00	0.00
ATOM	1058	C8	ADE	91	-17.140	-28.275	8.603	1.00	0.00
ATOM	1059	N7	ADE	91	-16.017	-28.873	8.898	1.00	0.00
ATOM	1060	C5	ADE	91	-15.405	-29.037	7.657	1.00	0.00
ATOM	1061	C6	ADE	91	-14.175	-29.593	7.254	1.00	0.00
ATOM	1062	N6	ADE	91	-13.290	-30.101	8.114	1.00	0.00

(419)

特開2003-135087

835

836

ATOM	1063	N1	ADE	91	-13.889	-29.633	5.940	1.00	0.00
ATOM	1064	C2	ADE	91	-14.760	-29.130	5.070	1.00	0.00
ATOM	1065	N3	ADE	91	-15.929	-28.557	5.321	1.00	0.00
ATOM	1066	C4	ADE	91	-16.196	-28.540	6.654	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.763	-26.871	6.774	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.730	-28.007	6.798	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.532	-26.791	5.584	1.00	0.00
ATOM	1070	P	ADE	92	-22.441	-28.004	5.027	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.486	-27.432	4.148	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.824	-28.873	6.161	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.393	-28.807	4.102	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.761	-28.179	3.002	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.711	-29.109	2.389	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.721	-29.437	3.350	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.339	-30.785	3.178	1.00	0.00
ATOM	1078	N9	ADE	92	-17.718	-31.295	4.423	1.00	0.00
ATOM	1079	C8	ADE	92	-18.257	-31.309	5.685	1.00	0.00
ATOM	1080	N7	ADE	92	-17.463	-31.768	6.610	1.00	0.00
ATOM	1081	C5	ADE	92	-16.306	-32.086	5.911	1.00	0.00
ATOM	1082	C6	ADE	92	-15.068	-32.622	6.314	1.00	0.00
ATOM	1083	N6	ADE	92	-14.811	-32.932	7.586	1.00	0.00
ATOM	1084	N1	ADE	92	-14.113	-32.814	5.387	1.00	0.00
ATOM	1085	C2	ADE	92	-14.381	-32.501	4.121	1.00	0.00
ATOM	1086	N3	ADE	92	-15.506	-32.002	3.612	1.00	0.00
ATOM	1087	C4	ADE	92	-16.447	-31.806	4.574	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.306	-30.443	1.908	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.692	-31.435	2.899	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.899	-30.660	0.568	1.00	0.00
ATOM	1091	P	CYT	93	-20.459	-31.884	-0.323	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.495	-32.610	0.444	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.762	-31.378	-1.680	1.00	0.00
ATOM	1094	O5'	CYT	93	-19.160	-32.826	-0.417	1.00	0.00
ATOM	1095	C5'	CYT	93	-18.049	-32.461	-1.213	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.908	-33.447	-0.964	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.602	-33.445	0.412	1.00	0.00
ATOM	1098	C1'	CYT	93	-16.068	-34.698	0.768	1.00	0.00
ATOM	1099	N1	CYT	93	-16.276	-34.914	2.222	1.00	0.00
ATOM	1100	C6	CYT	93	-17.478	-34.587	2.800	1.00	0.00
ATOM	1101	C5	CYT	93	-17.702	-34.762	4.121	1.00	0.00
ATOM	1102	C4	CYT	93	-16.618	-35.298	4.895	1.00	0.00
ATOM	1103	N4	CYT	93	-16.730	-35.424	6.218	1.00	0.00
ATOM	1104	N3	CYT	93	-15.452	-35.626	4.324	1.00	0.00
ATOM	1105	C2	CYT	93	-15.248	-35.454	2.988	1.00	0.00
ATOM	1106	O2	CYT	93	-14.171	-35.773	2.490	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.285	-34.898	-1.293	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.902	-35.689	-0.045	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.562	-35.363	-2.413	1.00	0.00

END

HEADER 000000

(420)

特開2003-135087

837

838

REMARK 0.00535 1.65248 0.02512 0.01790 2.29692 1.57578

0.00000

REMARK 2.70845 0.25930 0.46863 1.24701 0.73351

REMARK 0.01228 0.00549 0.00647 0.02379 0.00855

REMARK 111 105 5 1 0 0

0

REMARK 1378 305 460 273 340

REMARK 0.04326 0.20173 0.04169 0.04829 0.20173 0.16914

REMARK 21.20763 1.69609

REMARK 1 1 0 0 0 0

0

ATOM 1 N GLU 1 10.879 -18.684 33.888 1.00 0.00

ATOM 2 CA GLU 1 9.675 -18.997 33.102 1.00 0.00

ATOM 3 CB GLU 1 8.626 -19.694 33.990 1.00 0.00

ATOM 4 CG GLU 1 7.368 -20.152 33.238 1.00 0.00

ATOM 5 CD GLU 1 7.715 -21.040 32.049 1.00 0.00

ATOM 6 OE1 GLU 1 7.753 -20.486 30.929 1.00 0.00

ATOM 7 OE2 GLU 1 7.985 -22.235 32.292 1.00 0.00

ATOM 8 C GLU 1 9.132 -17.718 32.465 1.00 0.00

ATOM 9 O GLU 1 9.360 -16.631 32.994 1.00 0.00

ATOM 10 N LYS 2 8.427 -17.851 31.340 1.00 0.00

ATOM 11 CA LYS 2 7.820 -16.763 30.594 1.00 0.00

ATOM 12 CB LYS 2 8.863 -16.097 29.679 1.00 0.00

ATOM 13 CG LYS 2 8.271 -14.896 28.927 1.00 0.00

ATOM 14 CD LYS 2 9.360 -14.175 28.122 1.00 0.00

ATOM 15 CE LYS 2 8.781 -13.100 27.192 1.00 0.00

ATOM 16 NZ LYS 2 7.983 -12.093 27.916 1.00 0.00

ATOM 17 C LYS 2 6.630 -17.347 29.831 1.00 0.00

ATOM 18 O LYS 2 6.735 -17.642 28.642 1.00 0.00

ATOM 19 N HIS 3 5.503 -17.509 30.535 1.00 0.00

ATOM 20 CA HIS 3 4.253 -18.049 30.012 1.00 0.00

ATOM 21 CB HIS 3 3.134 -17.787 31.031 1.00 0.00

ATOM 22 CG HIS 3 1.739 -18.042 30.509 1.00 0.00

ATOM 23 ND1 HIS 3 1.417 -19.134 29.717 1.00 0.00

ATOM 24 CE1 HIS 3 0.106 -19.045 29.431 1.00 0.00

ATOM 25 NE2 HIS 3 -0.473 -17.972 29.974 1.00 0.00

ATOM 26 CD2 HIS 3 0.564 -17.343 30.656 1.00 0.00

ATOM 27 C HIS 3 3.910 -17.449 28.646 1.00 0.00

ATOM 28 O HIS 3 3.756 -18.178 27.669 1.00 0.00

ATOM 29 N ARG 4 3.785 -16.119 28.588 1.00 0.00

ATOM 30 CA ARG 4 3.464 -15.409 27.363 1.00 0.00

ATOM 31 CB ARG 4 2.604 -14.176 27.672 1.00 0.00

ATOM 32 CG ARG 4 1.277 -14.615 28.307 1.00 0.00

ATOM 33 CD ARG 4 0.276 -13.462 28.416 1.00 0.00

ATOM 34 NE ARG 4 -1.014 -13.947 28.931 1.00 0.00

(421)

特開2003-135087

839

840

ATOM	35	CZ	ARG	4	-2.154	-13.236	28.960	1.00	0.00
ATOM	36	NH1	ARG	4	-3.286	-13.814	29.384	1.00	0.00
ATOM	37	NH2	ARG	4	-2.167	-11.956	28.564	1.00	0.00
ATOM	38	C	ARG	4	4.762	-15.075	26.626	1.00	0.00
ATOM	39	O	ARG	4	5.415	-14.074	26.925	1.00	0.00
ATOM	40	N	ALA	5	5.115	-15.934	25.664	1.00	0.00
ATOM	41	CA	ALA	5	6.293	-15.834	24.816	1.00	0.00
ATOM	42	CB	ALA	5	7.324	-16.883	25.253	1.00	0.00
ATOM	43	C	ALA	5	5.881	-16.026	23.353	1.00	0.00
ATOM	44	O	ALA	5	4.702	-16.223	23.053	1.00	0.00
ATOM	45	N	ARG	6	6.859	-15.962	22.444	1.00	0.00
ATOM	46	CA	ARG	6	6.639	-16.119	21.013	1.00	0.00
ATOM	47	CB	ARG	6	7.905	-15.704	20.243	1.00	0.00
ATOM	48	CG	ARG	6	9.098	-16.632	20.526	1.00	0.00
ATOM	49	CD	ARG	6	10.286	-16.284	19.627	1.00	0.00
ATOM	50	NE	ARG	6	11.410	-17.198	19.876	1.00	0.00
ATOM	51	CZ	ARG	6	12.549	-17.238	19.165	1.00	0.00
ATOM	52	NH1	ARG	6	13.494	-18.138	19.472	1.00	0.00
ATOM	53	NH2	ARG	6	12.744	-16.385	18.151	1.00	0.00
ATOM	54	C	ARG	6	6.234	-17.550	20.649	1.00	0.00
ATOM	55	O	ARG	6	6.323	-18.467	21.464	1.00	0.00
ATOM	56	N	LYS	7	5.809	-17.722	19.398	1.00	0.00
ATOM	57	CA	LYS	7	5.396	-18.976	18.792	1.00	0.00
ATOM	58	CB	LYS	7	3.921	-19.261	19.142	1.00	0.00
ATOM	59	CG	LYS	7	2.934	-18.143	18.761	1.00	0.00
ATOM	60	CD	LYS	7	1.646	-18.213	19.593	1.00	0.00
ATOM	61	CE	LYS	7	1.713	-17.311	20.836	1.00	0.00
ATOM	62	NZ	LYS	7	1.497	-15.882	20.516	1.00	0.00
ATOM	63	C	LYS	7	5.750	-18.868	17.302	1.00	0.00
ATOM	64	O	LYS	7	6.865	-18.452	16.992	1.00	0.00
ATOM	65	N	ARG	8	4.834	-19.213	16.388	1.00	0.00
ATOM	66	CA	ARG	8	5.026	-19.124	14.942	1.00	0.00
ATOM	67	CB	ARG	8	5.026	-17.654	14.480	1.00	0.00
ATOM	68	CG	ARG	8	3.600	-17.111	14.407	1.00	0.00
ATOM	69	CD	ARG	8	2.928	-17.500	13.089	1.00	0.00
ATOM	70	NE	ARG	8	1.473	-17.375	13.217	1.00	0.00
ATOM	71	CZ	ARG	8	0.610	-16.875	12.321	1.00	0.00
ATOM	72	NH1	ARG	8	-0.692	-17.015	12.574	1.00	0.00
ATOM	73	NH2	ARG	8	1.030	-16.275	11.198	1.00	0.00
ATOM	74	C	ARG	8	6.270	-19.847	14.430	1.00	0.00
ATOM	75	O	ARG	8	7.324	-19.236	14.253	1.00	0.00
ATOM	76	N	GLN	9	6.139	-21.146	14.144	1.00	0.00
ATOM	77	CA	GLN	9	7.228	-21.917	13.577	1.00	0.00
ATOM	78	CB	GLN	9	7.024	-23.413	13.865	1.00	0.00
ATOM	79	CG	GLN	9	8.229	-24.242	13.391	1.00	0.00
ATOM	80	CD	GLN	9	8.160	-25.698	13.846	1.00	0.00
ATOM	81	OE1	GLN	9	7.098	-26.210	14.191	1.00	0.00
ATOM	82	NE2	GLN	9	9.305	-26.382	13.853	1.00	0.00
ATOM	83	C	GLN	9	7.233	-21.580	12.085	1.00	0.00
ATOM	84	O	GLN	9	6.661	-22.308	11.282	1.00	0.00

841

842

ATOM	85	N	ALA	10	7.861	-20.458	11.715	1.00	0.00
ATOM	86	CA	ALA	10	7.933	-19.978	10.341	1.00	0.00
ATOM	87	CB	ALA	10	8.823	-18.735	10.279	1.00	0.00
ATOM	88	C	ALA	10	8.432	-21.059	9.377	1.00	0.00
ATOM	89	O	ALA	10	9.207	-21.933	9.765	1.00	0.00
ATOM	90	N	TRP	11	7.977	-20.998	8.123	1.00	0.00
ATOM	91	CA	TRP	11	8.356	-21.956	7.094	1.00	0.00
ATOM	92	CB	TRP	11	7.352	-21.921	5.938	1.00	0.00
ATOM	93	CG	TRP	11	6.012	-22.523	6.247	1.00	0.00
ATOM	94	CD1	TRP	11	5.115	-22.067	7.154	1.00	0.00
ATOM	95	NE1	TRP	11	4.000	-22.882	7.172	1.00	0.00
ATOM	96	CE2	TRP	11	4.126	-23.912	6.262	1.00	0.00
ATOM	97	CZ2	TRP	11	3.292	-24.981	5.901	1.00	0.00
ATOM	98	CH2	TRP	11	3.724	-25.884	4.921	1.00	0.00
ATOM	99	CZ3	TRP	11	4.974	-25.711	4.305	1.00	0.00
ATOM	100	CE3	TRP	11	5.800	-24.634	4.669	1.00	0.00
ATOM	101	CD2	TRP	11	5.401	-23.707	5.656	1.00	0.00
ATOM	102	C	TRP	11	9.785	-21.692	6.622	1.00	0.00
ATOM	103	O	TRP	11	10.219	-20.543	6.546	1.00	0.00
ATOM	104	N	LEU	12	10.506	-22.774	6.322	1.00	0.00
ATOM	105	CA	LEU	12	11.893	-22.751	5.869	1.00	0.00
ATOM	106	CB	LEU	12	12.721	-23.756	6.688	1.00	0.00
ATOM	107	CG	LEU	12	12.554	-23.621	8.212	1.00	0.00
ATOM	108	CD1	LEU	12	13.452	-24.652	8.904	1.00	0.00
ATOM	109	CD2	LEU	12	12.916	-22.218	8.716	1.00	0.00
ATOM	110	C	LEU	12	11.969	-23.091	4.380	1.00	0.00
ATOM	111	O	LEU	12	10.982	-23.554	3.798	1.00	0.00
ATOM	112	N	TRP	13	13.145	-22.872	3.762	1.00	0.00
ATOM	113	CA	TRP	13	13.317	-23.177	2.346	1.00	0.00
ATOM	114	CB	TRP	13	14.724	-22.938	1.761	1.00	0.00
ATOM	115	CG	TRP	13	15.722	-23.976	2.171	1.00	0.00
ATOM	116	CD1	TRP	13	16.197	-24.024	3.413	1.00	0.00
ATOM	117	NE1	TRP	13	17.074	-25.067	3.583	1.00	0.00
ATOM	118	CE2	TRP	13	17.189	-25.782	2.412	1.00	0.00
ATOM	119	CZ2	TRP	13	17.923	-26.926	2.071	1.00	0.00
ATOM	120	CH2	TRP	13	17.808	-27.448	0.776	1.00	0.00
ATOM	121	CZ3	TRP	13	16.967	-26.816	-0.155	1.00	0.00
ATOM	122	CE3	TRP	13	16.241	-25.660	0.188	1.00	0.00
ATOM	123	CD2	TRP	13	16.330	-25.112	1.484	1.00	0.00
ATOM	124	C	TRP	13	12.942	-24.622	2.095	1.00	0.00
ATOM	125	O	TRP	13	12.090	-24.828	1.263	1.00	0.00
ATOM	126	N	GLU	14	13.547	-25.617	2.761	1.00	0.00
ATOM	127	CA	GLU	14	13.255	-27.008	2.465	1.00	0.00
ATOM	128	CB	GLU	14	14.113	-27.986	3.274	1.00	0.00
ATOM	129	CG	GLU	14	13.841	-29.397	2.737	1.00	0.00
ATOM	130	CD	GLU	14	14.738	-30.494	3.288	1.00	0.00
ATOM	131	OE1	GLU	14	14.475	-31.651	2.892	1.00	0.00
ATOM	132	OE2	GLU	14	15.655	-30.165	4.071	1.00	0.00
ATOM	133	C	GLU	14	11.755	-27.289	2.475	1.00	0.00
ATOM	134	O	GLU	14	11.278	-28.060	1.647	1.00	0.00

(423)

特開2003-135087

843

844

ATOM	135	N	GLU	15	11.000	-26.647	3.371	1.00	0.00
ATOM	136	CA	GLU	15	9.566	-26.841	3.404	1.00	0.00
ATOM	137	CB	GLU	15	8.949	-26.228	4.665	1.00	0.00
ATOM	138	CG	GLU	15	9.611	-26.756	5.941	1.00	0.00
ATOM	139	CD	GLU	15	8.792	-26.390	7.168	1.00	0.00
ATOM	140	OE1	GLU	15	9.123	-25.371	7.814	1.00	0.00
ATOM	141	OE2	GLU	15	7.845	-27.147	7.469	1.00	0.00
ATOM	142	C	GLU	15	8.916	-26.326	2.117	1.00	0.00
ATOM	143	O	GLU	15	8.266	-27.096	1.414	1.00	0.00
ATOM	144	N	ASP	16	9.087	-25.041	1.790	1.00	0.00
ATOM	145	CA	ASP	16	8.496	-24.459	0.580	1.00	0.00
ATOM	146	CB	ASP	16	8.747	-22.950	0.565	1.00	0.00
ATOM	147	CG	ASP	16	8.056	-22.237	1.720	1.00	0.00
ATOM	148	OD1	ASP	16	6.917	-22.623	2.059	1.00	0.00
ATOM	149	OD2	ASP	16	8.644	-21.253	2.216	1.00	0.00
ATOM	150	C	ASP	16	9.040	-25.101	-0.702	1.00	0.00
ATOM	151	O	ASP	16	8.298	-25.380	-1.639	1.00	0.00
ATOM	152	N	LYS	17	10.350	-25.326	-0.721	1.00	0.00
ATOM	153	CA	LYS	17	11.173	-25.923	-1.757	1.00	0.00
ATOM	154	CB	LYS	17	12.648	-25.972	-1.255	1.00	0.00
ATOM	155	CG	LYS	17	13.606	-26.567	-2.299	1.00	0.00
ATOM	156	CD	LYS	17	13.943	-25.545	-3.394	1.00	0.00
ATOM	157	CE	LYS	17	14.932	-26.101	-4.427	1.00	0.00
ATOM	158	NZ	LYS	17	16.250	-26.407	-3.839	1.00	0.00
ATOM	159	C	LYS	17	10.594	-27.308	-2.098	1.00	0.00
ATOM	160	O	LYS	17	10.197	-27.569	-3.238	1.00	0.00
ATOM	161	N	ASN	18	10.534	-28.196	-1.100	1.00	0.00
ATOM	162	CA	ASN	18	10.005	-29.544	-1.258	1.00	0.00
ATOM	163	CB	ASN	18	10.232	-30.394	-0.002	1.00	0.00
ATOM	164	CG	ASN	18	11.692	-30.752	0.277	1.00	0.00
ATOM	165	OD1	ASN	18	12.598	-30.297	-0.419	1.00	0.00
ATOM	166	ND2	ASN	18	11.920	-31.578	1.302	1.00	0.00
ATOM	167	C	ASN	18	8.514	-29.501	-1.596	1.00	0.00
ATOM	168	O	ASN	18	8.070	-30.250	-2.462	1.00	0.00
ATOM	169	N	LEU	19	7.740	-28.633	-0.930	1.00	0.00
ATOM	170	CA	LEU	19	6.309	-28.481	-1.172	1.00	0.00
ATOM	171	CB	LEU	19	5.735	-27.406	-0.239	1.00	0.00
ATOM	172	CG	LEU	19	4.261	-27.062	-0.502	1.00	0.00
ATOM	173	CD1	LEU	19	3.356	-28.288	-0.366	1.00	0.00
ATOM	174	CD2	LEU	19	3.824	-25.964	0.474	1.00	0.00
ATOM	175	C	LEU	19	6.066	-28.154	-2.645	1.00	0.00
ATOM	176	O	LEU	19	5.222	-28.780	-3.280	1.00	0.00
ATOM	177	N	ARG	20	6.817	-27.193	-3.193	1.00	0.00
ATOM	178	CA	ARG	20	6.732	-26.791	-4.590	1.00	0.00
ATOM	179	CB	ARG	20	7.704	-25.633	-4.852	1.00	0.00
ATOM	180	CG	ARG	20	7.670	-25.134	-6.303	1.00	0.00
ATOM	181	CD	ARG	20	8.431	-23.803	-6.402	1.00	0.00
ATOM	182	NE	ARG	20	8.553	-23.323	-7.789	1.00	0.00
ATOM	183	CZ	ARG	20	9.459	-23.754	-8.684	1.00	0.00
ATOM	184	NH1	ARG	20	10.279	-24.773	-8.392	1.00	0.00

(424)

特開2003-135087

845				846			
ATOM	185	NH2 ARG	20	9.546	-23.149	-9.874	1.00 0.00
ATOM	186	C ARG	20	6.991	-28.014	-5.467	1.00 0.00
ATOM	187	O ARG	20	6.231	-28.273	-6.398	1.00 0.00
ATOM	188	N SER	21	8.042	-28.789	-5.156	1.00 0.00
ATOM	189	CA SER	21	8.337	-30.013	-5.896	1.00 0.00
ATOM	190	CB SER	21	9.641	-30.640	-5.387	1.00 0.00
ATOM	191	OG SER	21	10.068	-31.687	-6.242	1.00 0.00
ATOM	192	C SER	21	7.158	-30.995	-5.788	1.00 0.00
ATOM	193	O SER	21	6.846	-31.698	-6.749	1.00 0.00
ATOM	194	N GLY	22	6.502	-31.045	-4.625	1.00 0.00
ATOM	195	CA GLY	22	5.358	-31.899	-4.350	1.00 0.00
ATOM	196	C GLY	22	4.174	-31.538	-5.241	1.00 0.00
ATOM	197	O GLY	22	3.679	-32.391	-5.972	1.00 0.00
ATOM	198	N VAL	23	3.721	-30.280	-5.195	1.00 0.00
ATOM	199	CA VAL	23	2.605	-29.810	-6.007	1.00 0.00
ATOM	200	CB VAL	23	2.214	-28.371	-5.631	1.00 0.00
ATOM	201	CG1 VAL	23	1.053	-27.894	-6.514	1.00 0.00
ATOM	202	CG2 VAL	23	1.764	-28.304	-4.165	1.00 0.00
ATOM	203	C VAL	23	2.950	-29.965	-7.490	1.00 0.00
ATOM	204	O VAL	23	2.110	-30.379	-8.278	1.00 0.00
ATOM	205	N ARG	24	4.190	-29.670	-7.885	1.00 0.00
ATOM	206	CA ARG	24	4.624	-29.842	-9.265	1.00 0.00
ATOM	207	CB ARG	24	6.091	-29.398	-9.365	1.00 0.00
ATOM	208	CG ARG	24	6.723	-29.682	-10.736	1.00 0.00
ATOM	209	CD ARG	24	8.187	-29.234	-10.788	1.00 0.00
ATOM	210	NE ARG	24	9.007	-29.926	-9.779	1.00 0.00
ATOM	211	CZ ARG	24	10.340	-29.817	-9.660	1.00 0.00
ATOM	212	NH1 ARG	24	11.043	-29.108	-10.553	1.00 0.00
ATOM	213	NH2 ARG	24	10.971	-30.420	-8.643	1.00 0.00
ATOM	214	C ARG	24	4.458	-31.309	-9.694	1.00 0.00
ATOM	215	O ARG	24	4.080	-31.588	-10.829	1.00 0.00
ATOM	216	N LYS	25	4.769	-32.237	-8.783	1.00 0.00
ATOM	217	CA LYS	25	4.743	-33.677	-9.000	1.00 0.00
ATOM	218	CB LYS	25	5.813	-34.257	-8.072	1.00 0.00
ATOM	219	CG LYS	25	6.250	-35.693	-8.356	1.00 0.00
ATOM	220	CD LYS	25	7.377	-36.128	-7.399	1.00 0.00
ATOM	221	CE LYS	25	8.604	-35.196	-7.398	1.00 0.00
ATOM	222	NZ LYS	25	8.475	-34.077	-6.439	1.00 0.00
ATOM	223	C LYS	25	3.377	-34.358	-8.853	1.00 0.00
ATOM	224	O LYS	25	3.166	-35.384	-9.498	1.00 0.00
ATOM	225	N TYR	26	2.465	-33.838	-8.018	1.00 0.00
ATOM	226	CA TYR	26	1.158	-34.458	-7.775	1.00 0.00
ATOM	227	CB TYR	26	1.175	-35.101	-6.383	1.00 0.00
ATOM	228	CG TYR	26	2.379	-35.990	-6.135	1.00 0.00
ATOM	229	CD1 TYR	26	2.559	-37.158	-6.895	1.00 0.00
ATOM	230	CE1 TYR	26	3.678	-37.976	-6.672	1.00 0.00
ATOM	231	CZ TYR	26	4.619	-37.631	-5.687	1.00 0.00
ATOM	232	OH TYR	26	5.703	-38.430	-5.472	1.00 0.00
ATOM	233	CE2 TYR	26	4.443	-36.460	-4.930	1.00 0.00
ATOM	234	CD2 TYR	26	3.324	-35.642	-5.154	1.00 0.00

(425)

特開2003-135087

847					848				
ATOM	235	C	TYR	26	-0.039	-33.509	-7.885	1.00	0.00
ATOM	236	O	TYR	26	-1.165	-33.973	-8.053	1.00	0.00
ATOM	237	N	GLY	27	0.186	-32.198	-7.778	1.00	0.00
ATOM	238	CA	GLY	27	-0.864	-31.188	-7.835	1.00	0.00
ATOM	239	C	GLY	27	-1.523	-31.013	-6.468	1.00	0.00
ATOM	240	O	GLY	27	-1.329	-31.832	-5.567	1.00	0.00
ATOM	241	N	GLU	28	-2.313	-29.945	-6.310	1.00	0.00
ATOM	242	CA	GLU	28	-3.026	-29.655	-5.077	1.00	0.00
ATOM	243	CB	GLU	28	-3.739	-28.298	-5.192	1.00	0.00
ATOM	244	CG	GLU	28	-2.758	-27.114	-5.297	1.00	0.00
ATOM	245	CD	GLU	28	-2.352	-26.723	-6.717	1.00	0.00
ATOM	246	OE1	GLU	28	-1.892	-25.567	-6.867	1.00	0.00
ATOM	247	OE2	GLU	28	-2.515	-27.556	-7.633	1.00	0.00
ATOM	248	C	GLU	28	-4.007	-30.790	-4.750	1.00	0.00
ATOM	249	O	GLU	28	-4.348	-31.596	-5.615	1.00	0.00
ATOM	250	N	GLY	29	-4.447	-30.865	-3.490	1.00	0.00
ATOM	251	CA	GLY	29	-5.356	-31.907	-3.033	1.00	0.00
ATOM	252	C	GLY	29	-4.637	-33.246	-2.875	1.00	0.00
ATOM	253	O	GLY	29	-5.215	-34.303	-3.119	1.00	0.00
ATOM	254	N	ASN	30	-3.370	-33.185	-2.454	1.00	0.00
ATOM	255	CA	ASN	30	-2.497	-34.326	-2.209	1.00	0.00
ATOM	256	CB	ASN	30	-1.702	-34.658	-3.485	1.00	0.00
ATOM	257	CG	ASN	30	-2.585	-35.134	-4.635	1.00	0.00
ATOM	258	OD1	ASN	30	-2.944	-36.308	-4.701	1.00	0.00
ATOM	259	ND2	ASN	30	-2.920	-34.237	-5.559	1.00	0.00
ATOM	260	C	ASN	30	-1.539	-33.956	-1.074	1.00	0.00
ATOM	261	O	ASN	30	-0.407	-34.434	-1.038	1.00	0.00
ATOM	262	N	TRP	31	-1.977	-33.086	-0.156	1.00	0.00
ATOM	263	CA	TRP	31	-1.163	-32.595	0.947	1.00	0.00
ATOM	264	CB	TRP	31	-1.922	-31.535	1.752	1.00	0.00
ATOM	265	CG	TRP	31	-2.753	-30.612	0.915	1.00	0.00
ATOM	266	CD1	TRP	31	-4.103	-30.622	0.824	1.00	0.00
ATOM	267	NE1	TRP	31	-4.522	-29.645	-0.055	1.00	0.00
ATOM	268	CE2	TRP	31	-3.450	-28.951	-0.570	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.353	-27.892	-1.481	1.00	0.00
ATOM	270	CH2	TRP	31	-2.085	-27.399	-1.814	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.932	-27.963	-1.244	1.00	0.00
ATOM	272	CE3	TRP	31	-1.042	-29.028	-0.332	1.00	0.00
ATOM	273	CD2	TRP	31	-2.303	-29.548	0.029	1.00	0.00
ATOM	274	C	TRP	31	-0.632	-33.751	1.791	1.00	0.00
ATOM	275	O	TRP	31	0.562	-33.798	2.066	1.00	0.00
ATOM	276	N	SER	32	-1.504	-34.689	2.170	1.00	0.00
ATOM	277	CA	SER	32	-1.160	-35.878	2.939	1.00	0.00
ATOM	278	CB	SER	32	-2.392	-36.790	3.022	1.00	0.00
ATOM	279	OG	SER	32	-2.859	-37.150	1.728	1.00	0.00
ATOM	280	C	SER	32	0.016	-36.630	2.303	1.00	0.00
ATOM	281	O	SER	32	0.998	-36.959	2.966	1.00	0.00
ATOM	282	N	LYS	33	-0.094	-36.898	1.000	1.00	0.00
ATOM	283	CA	LYS	33	0.911	-37.605	0.221	1.00	0.00
ATOM	284	CB	LYS	33	0.402	-37.839	-1.210	1.00	0.00

(426)

特開2003-135087

849

850

ATOM	285	CG	LYS	33	-0.972	-38.528	-1.237	1.00	0.00
ATOM	286	CD	LYS	33	-1.470	-38.688	-2.677	1.00	0.00
ATOM	287	CE	LYS	33	-2.967	-39.024	-2.694	1.00	0.00
ATOM	288	NZ	LYS	33	-3.526	-38.944	-4.056	1.00	0.00
ATOM	289	C	LYS	33	2.212	-36.804	0.231	1.00	0.00
ATOM	290	O	LYS	33	3.269	-37.332	0.569	1.00	0.00
ATOM	291	N	ILE	34	2.128	-35.519	-0.129	1.00	0.00
ATOM	292	CA	ILE	34	3.256	-34.599	-0.164	1.00	0.00
ATOM	293	CB	ILE	34	2.773	-33.226	-0.676	1.00	0.00
ATOM	294	CG2	ILE	34	3.871	-32.168	-0.543	1.00	0.00
ATOM	295	CG1	ILE	34	2.373	-33.327	-2.161	1.00	0.00
ATOM	296	CD1	ILE	34	1.554	-32.129	-2.658	1.00	0.00
ATOM	297	C	ILE	34	3.963	-34.572	1.202	1.00	0.00
ATOM	298	O	ILE	34	5.189	-34.528	1.249	1.00	0.00
ATOM	299	N	LEU	35	3.203	-34.626	2.303	1.00	0.00
ATOM	300	CA	LEU	35	3.708	-34.654	3.673	1.00	0.00
ATOM	301	CB	LEU	35	2.520	-34.528	4.649	1.00	0.00
ATOM	302	CG	LEU	35	2.828	-34.058	6.082	1.00	0.00
ATOM	303	CD1	LEU	35	1.517	-34.080	6.880	1.00	0.00
ATOM	304	CD2	LEU	35	3.871	-34.907	6.816	1.00	0.00
ATOM	305	C	LEU	35	4.480	-35.959	3.890	1.00	0.00
ATOM	306	O	LEU	35	5.581	-35.951	4.436	1.00	0.00
ATOM	307	N	LEU	36	3.911	-37.092	3.457	1.00	0.00
ATOM	308	CA	LEU	36	4.550	-38.391	3.607	1.00	0.00
ATOM	309	CB	LEU	36	3.606	-39.498	3.114	1.00	0.00
ATOM	310	CG	LEU	36	4.169	-40.921	3.274	1.00	0.00
ATOM	311	CD1	LEU	36	4.462	-41.272	4.737	1.00	0.00
ATOM	312	CD2	LEU	36	3.150	-41.919	2.710	1.00	0.00
ATOM	313	C	LEU	36	5.899	-38.401	2.883	1.00	0.00
ATOM	314	O	LEU	36	6.898	-38.850	3.444	1.00	0.00
ATOM	315	N	HIS	37	5.930	-37.895	1.645	1.00	0.00
ATOM	316	CA	HIS	37	7.144	-37.822	0.844	1.00	0.00
ATOM	317	CB	HIS	37	6.812	-37.335	-0.575	1.00	0.00
ATOM	318	CG	HIS	37	5.898	-38.246	-1.352	1.00	0.00
ATOM	319	ND1	HIS	37	6.216	-39.567	-1.632	1.00	0.00
ATOM	320	CE1	HIS	37	5.193	-40.083	-2.335	1.00	0.00
ATOM	321	NE2	HIS	37	4.213	-39.202	-2.547	1.00	0.00
ATOM	322	CD2	HIS	37	4.664	-38.045	-1.922	1.00	0.00
ATOM	323	C	HIS	37	8.168	-36.886	1.492	1.00	0.00
ATOM	324	O	HIS	37	9.309	-37.280	1.727	1.00	0.00
ATOM	325	N	TYR	38	7.757	-35.642	1.758	1.00	0.00
ATOM	326	CA	TYR	38	8.568	-34.586	2.333	1.00	0.00
ATOM	327	CB	TYR	38	8.482	-33.371	1.406	1.00	0.00
ATOM	328	CG	TYR	38	8.820	-33.694	-0.039	1.00	0.00
ATOM	329	CD1	TYR	38	7.834	-33.592	-1.038	1.00	0.00
ATOM	330	CE1	TYR	38	8.147	-33.892	-2.375	1.00	0.00
ATOM	331	CZ	TYR	38	9.448	-34.294	-2.716	1.00	0.00
ATOM	332	OH	TYR	38	9.751	-34.586	-4.016	1.00	0.00
ATOM	333	CE2	TYR	38	10.436	-34.398	-1.723	1.00	0.00
ATOM	334	CD2	TYR	38	10.123	-34.098	-0.386	1.00	0.00

(427)

特開2003-135087

851					852				
ATOM	335	C	TYR	38	8.075	-34.276	3.744	1.00	0.00
ATOM	336	O	TYR	38	7.118	-33.528	3.928	1.00	0.00
ATOM	337	N	LYS	39	8.736	-34.870	4.740	1.00	0.00
ATOM	338	CA	LYS	39	8.413	-34.722	6.150	1.00	0.00
ATOM	339	CB	LYS	39	9.156	-35.809	6.936	1.00	0.00
ATOM	340	CG	LYS	39	8.642	-37.205	6.541	1.00	0.00
ATOM	341	CD	LYS	39	9.319	-38.331	7.330	1.00	0.00
ATOM	342	CE	LYS	39	10.810	-38.460	6.987	1.00	0.00
ATOM	343	NZ	LYS	39	11.412	-39.652	7.611	1.00	0.00
ATOM	344	C	LYS	39	8.743	-33.312	6.651	1.00	0.00
ATOM	345	O	LYS	39	9.840	-33.061	7.147	1.00	0.00
ATOM	346	N	PHE	40	7.776	-32.400	6.517	1.00	0.00
ATOM	347	CA	PHE	40	7.872	-31.003	6.922	1.00	0.00
ATOM	348	CB	PHE	40	6.652	-30.264	6.368	1.00	0.00
ATOM	349	CG	PHE	40	6.417	-30.400	4.883	1.00	0.00
ATOM	350	CD1	PHE	40	5.289	-31.076	4.393	1.00	0.00
ATOM	351	CE1	PHE	40	5.082	-31.179	3.007	1.00	0.00
ATOM	352	CZ	PHE	40	6.000	-30.603	2.111	1.00	0.00
ATOM	353	CE2	PHE	40	7.131	-29.935	2.606	1.00	0.00
ATOM	354	CD2	PHE	40	7.336	-29.835	3.990	1.00	0.00
ATOM	355	C	PHE	40	7.894	-30.831	8.445	1.00	0.00
ATOM	356	O	PHE	40	7.770	-31.802	9.192	1.00	0.00
ATOM	357	N	ASN	41	8.022	-29.579	8.909	1.00	0.00
ATOM	358	CA	ASN	41	8.021	-29.256	10.330	1.00	0.00
ATOM	359	CB	ASN	41	8.645	-27.874	10.587	1.00	0.00
ATOM	360	CG	ASN	41	10.156	-27.847	10.369	1.00	0.00
ATOM	361	OD1	ASN	41	10.874	-28.688	10.902	1.00	0.00
ATOM	362	ND2	ASN	41	10.660	-26.873	9.613	1.00	0.00
ATOM	363	C	ASN	41	6.583	-29.305	10.847	1.00	0.00
ATOM	364	O	ASN	41	5.951	-28.267	11.026	1.00	0.00
ATOM	365	N	ASN	42	6.081	-30.523	11.083	1.00	0.00
ATOM	366	CA	ASN	42	4.741	-30.831	11.585	1.00	0.00
ATOM	367	CB	ASN	42	4.675	-30.690	13.120	1.00	0.00
ATOM	368	CG	ASN	42	4.901	-29.265	13.631	1.00	0.00
ATOM	369	OD1	ASN	42	3.965	-28.480	13.745	1.00	0.00
ATOM	370	ND2	ASN	42	6.149	-28.929	13.968	1.00	0.00
ATOM	371	C	ASN	42	3.619	-30.083	10.851	1.00	0.00
ATOM	372	O	ASN	42	2.615	-29.711	11.455	1.00	0.00
ATOM	373	N	ARG	43	3.776	-29.877	9.539	1.00	0.00
ATOM	374	CA	ARG	43	2.787	-29.186	8.726	1.00	0.00
ATOM	375	CB	ARG	43	3.427	-28.582	7.470	1.00	0.00
ATOM	376	CG	ARG	43	4.692	-27.776	7.753	1.00	0.00
ATOM	377	CD	ARG	43	4.484	-26.573	8.672	1.00	0.00
ATOM	378	NE	ARG	43	5.737	-25.821	8.713	1.00	0.00
ATOM	379	CZ	ARG	43	5.984	-24.731	9.445	1.00	0.00
ATOM	380	NH1	ARG	43	7.237	-24.275	9.512	1.00	0.00
ATOM	381	NH2	ARG	43	5.006	-24.098	10.106	1.00	0.00
ATOM	382	C	ARG	43	1.687	-30.164	8.325	1.00	0.00
ATOM	383	O	ARG	43	1.919	-31.053	7.508	1.00	0.00
ATOM	384	N	THR	44	0.491	-29.998	8.889	1.00	0.00

(428)

特開2003-135087

853

854

ATOM	385	CA	THR	44	-0.654	-30.839	8.577	1.00	0.00
ATOM	386	CB	THR	44	-1.766	-30.581	9.605	1.00	0.00
ATOM	387	CG2	THR	44	-1.281	-30.783	11.046	1.00	0.00
ATOM	388	OG1	THR	44	-2.258	-29.262	9.439	1.00	0.00
ATOM	389	C	THR	44	-1.175	-30.481	7.185	1.00	0.00
ATOM	390	O	THR	44	-0.749	-29.487	6.597	1.00	0.00
ATOM	391	N	SER	45	-2.135	-31.260	6.671	1.00	0.00
ATOM	392	CA	SER	45	-2.757	-30.961	5.390	1.00	0.00
ATOM	393	CB	SER	45	-3.813	-32.014	5.051	1.00	0.00
ATOM	394	OG	SER	45	-3.184	-33.255	4.812	1.00	0.00
ATOM	395	C	SER	45	-3.367	-29.556	5.430	1.00	0.00
ATOM	396	O	SER	45	-3.367	-28.861	4.418	1.00	0.00
ATOM	397	N	VAL	46	-3.861	-29.128	6.602	1.00	0.00
ATOM	398	CA	VAL	46	-4.431	-27.804	6.804	1.00	0.00
ATOM	399	CB	VAL	46	-5.041	-27.679	8.214	1.00	0.00
ATOM	400	CG1	VAL	46	-5.611	-26.275	8.440	1.00	0.00
ATOM	401	CG2	VAL	46	-6.165	-28.691	8.459	1.00	0.00
ATOM	402	C	VAL	46	-3.340	-26.751	6.587	1.00	0.00
ATOM	403	O	VAL	46	-3.534	-25.823	5.803	1.00	0.00
ATOM	404	N	MET	47	-2.201	-26.890	7.283	1.00	0.00
ATOM	405	CA	MET	47	-1.110	-25.927	7.153	1.00	0.00
ATOM	406	CB	MET	47	0.023	-26.198	8.154	1.00	0.00
ATOM	407	CG	MET	47	-0.438	-26.374	9.607	1.00	0.00
ATOM	408	SD	MET	47	-1.807	-25.327	10.172	1.00	0.00
ATOM	409	CE	MET	47	-2.021	-25.998	11.839	1.00	0.00
ATOM	410	C	MET	47	-0.580	-25.881	5.716	1.00	0.00
ATOM	411	O	MET	47	-0.376	-24.801	5.170	1.00	0.00
ATOM	412	N	LEU	48	-0.366	-27.048	5.102	1.00	0.00
ATOM	413	CA	LEU	48	0.122	-27.178	3.733	1.00	0.00
ATOM	414	CB	LEU	48	0.258	-28.667	3.388	1.00	0.00
ATOM	415	CG	LEU	48	1.493	-29.273	4.061	1.00	0.00
ATOM	416	CD1	LEU	48	1.355	-30.790	4.200	1.00	0.00
ATOM	417	CD2	LEU	48	2.739	-28.962	3.227	1.00	0.00
ATOM	418	C	LEU	48	-0.819	-26.479	2.755	1.00	0.00
ATOM	419	O	LEU	48	-0.382	-25.662	1.945	1.00	0.00
ATOM	420	N	LYS	49	-2.111	-26.806	2.853	1.00	0.00
ATOM	421	CA	LYS	49	-3.167	-26.234	2.038	1.00	0.00
ATOM	422	CB	LYS	49	-4.516	-26.761	2.562	1.00	0.00
ATOM	423	CG	LYS	49	-5.728	-26.086	1.916	1.00	0.00
ATOM	424	CD	LYS	49	-7.023	-26.299	2.704	1.00	0.00
ATOM	425	CE	LYS	49	-7.039	-25.494	4.015	1.00	0.00
ATOM	426	NZ	LYS	49	-8.395	-25.432	4.588	1.00	0.00
ATOM	427	C	LYS	49	-3.085	-24.709	2.103	1.00	0.00
ATOM	428	O	LYS	49	-2.947	-24.050	1.072	1.00	0.00
ATOM	429	N	ASP	50	-3.179	-24.153	3.316	1.00	0.00
ATOM	430	CA	ASP	50	-3.138	-22.717	3.539	1.00	0.00
ATOM	431	CB	ASP	50	-3.244	-22.421	5.034	1.00	0.00
ATOM	432	CG	ASP	50	-3.082	-20.926	5.265	1.00	0.00
ATOM	433	OD1	ASP	50	-1.937	-20.516	5.550	1.00	0.00
ATOM	434	OD2	ASP	50	-4.113	-20.228	5.160	1.00	0.00

(429)

特開2003-135087

855

856

ATOM	435	C	ASP	50	-1.872	-22.088	2.958	1.00	0.00
ATOM	436	O	ASP	50	-1.966	-21.158	2.157	1.00	0.00
ATOM	437	N	ARG	51	-0.702	-22.597	3.365	1.00	0.00
ATOM	438	CA	ARG	51	0.592	-22.103	2.917	1.00	0.00
ATOM	439	CB	ARG	51	1.722	-23.040	3.384	1.00	0.00
ATOM	440	CG	ARG	51	3.107	-22.679	2.814	1.00	0.00
ATOM	441	CD	ARG	51	3.523	-21.257	3.202	1.00	0.00
ATOM	442	NE	ARG	51	4.881	-20.912	2.747	1.00	0.00
ATOM	443	CZ	ARG	51	5.291	-19.679	2.389	1.00	0.00
ATOM	444	NH1	ARG	51	6.568	-19.463	2.054	1.00	0.00
ATOM	445	NH2	ARG	51	4.444	-18.643	2.365	1.00	0.00
ATOM	446	C	ARG	51	0.600	-21.952	1.402	1.00	0.00
ATOM	447	O	ARG	51	0.891	-20.871	0.893	1.00	0.00
ATOM	448	N	TRP	52	0.279	-23.031	0.682	1.00	0.00
ATOM	449	CA	TRP	52	0.275	-23.005	-0.763	1.00	0.00
ATOM	450	CB	TRP	52	0.057	-24.404	-1.315	1.00	0.00
ATOM	451	CG	TRP	52	0.298	-24.483	-2.785	1.00	0.00
ATOM	452	CD1	TRP	52	-0.658	-24.599	-3.727	1.00	0.00
ATOM	453	NE1	TRP	52	-0.085	-24.651	-4.978	1.00	0.00
ATOM	454	CE2	TRP	52	1.292	-24.556	-4.899	1.00	0.00
ATOM	455	CZ2	TRP	52	2.311	-24.556	-5.862	1.00	0.00
ATOM	456	CH2	TRP	52	3.646	-24.441	-5.446	1.00	0.00
ATOM	457	CZ3	TRP	52	3.948	-24.324	-4.079	1.00	0.00
ATOM	458	CE3	TRP	52	2.920	-24.326	-3.120	1.00	0.00
ATOM	459	CD2	TRP	52	1.566	-24.444	-3.503	1.00	0.00
ATOM	460	C	TRP	52	-0.748	-22.021	-1.326	1.00	0.00
ATOM	461	O	TRP	52	-0.451	-21.344	-2.303	1.00	0.00
ATOM	462	N	ARG	53	-1.944	-21.926	-0.734	1.00	0.00
ATOM	463	CA	ARG	53	-2.965	-20.998	-1.210	1.00	0.00
ATOM	464	CB	ARG	53	-4.270	-21.173	-0.432	1.00	0.00
ATOM	465	CG	ARG	53	-4.928	-22.490	-0.859	1.00	0.00
ATOM	466	CD	ARG	53	-5.905	-22.988	0.205	1.00	0.00
ATOM	467	NE	ARG	53	-7.186	-22.276	0.190	1.00	0.00
ATOM	468	CZ	ARG	53	-8.243	-22.670	-0.543	1.00	0.00
ATOM	469	NH1	ARG	53	-9.446	-22.118	-0.365	1.00	0.00
ATOM	470	NH2	ARG	53	-8.114	-23.637	-1.457	1.00	0.00
ATOM	471	C	ARG	53	-2.444	-19.564	-1.135	1.00	0.00
ATOM	472	O	ARG	53	-2.561	-18.831	-2.114	1.00	0.00
ATOM	473	N	THR	54	-1.856	-19.171	0.001	1.00	0.00
ATOM	474	CA	THR	54	-1.288	-17.839	0.162	1.00	0.00
ATOM	475	CB	THR	54	-0.769	-17.657	1.596	1.00	0.00
ATOM	476	CG2	THR	54	-0.292	-16.218	1.818	1.00	0.00
ATOM	477	OG1	THR	54	-1.807	-17.946	2.510	1.00	0.00
ATOM	478	C	THR	54	-0.172	-17.651	-0.868	1.00	0.00
ATOM	479	O	THR	54	-0.155	-16.672	-1.610	1.00	0.00
ATOM	480	N	MET	55	0.758	-18.608	-0.925	1.00	0.00
ATOM	481	CA	MET	55	1.874	-18.607	-1.847	1.00	0.00
ATOM	482	CB	MET	55	2.628	-19.932	-1.662	1.00	0.00
ATOM	483	CG	MET	55	4.029	-19.841	-2.240	1.00	0.00
ATOM	484	SD	MET	55	5.164	-18.840	-1.251	1.00	0.00

(430)

特開2003-135087

857					858				
ATOM	485	CE	MET	55	6.420	-18.626	-2.517	1.00	0.00
ATOM	486	C	MET	55	1.409	-18.422	-3.299	1.00	0.00
ATOM	487	O	MET	55	2.059	-17.729	-4.077	1.00	0.00
ATOM	488	N	LYS	56	0.290	-19.051	-3.664	1.00	0.00
ATOM	489	CA	LYS	56	-0.295	-19.024	-4.994	1.00	0.00
ATOM	490	CB	LYS	56	-1.178	-20.273	-5.144	1.00	0.00
ATOM	491	CG	LYS	56	-1.697	-20.512	-6.565	1.00	0.00
ATOM	492	CD	LYS	56	-2.323	-21.913	-6.630	1.00	0.00
ATOM	493	CE	LYS	56	-2.769	-22.265	-8.053	1.00	0.00
ATOM	494	NZ	LYS	56	-3.290	-23.644	-8.134	1.00	0.00
ATOM	495	C	LYS	56	-1.041	-17.715	-5.258	1.00	0.00
ATOM	496	O	LYS	56	-0.627	-16.936	-6.113	1.00	0.00
ATOM	497	N	LYS	57	-2.141	-17.472	-4.542	1.00	0.00
ATOM	498	CA	LYS	57	-2.985	-16.292	-4.699	1.00	0.00
ATOM	499	CB	LYS	57	-4.419	-16.648	-4.267	1.00	0.00
ATOM	500	CG	LYS	57	-5.096	-17.701	-5.158	1.00	0.00
ATOM	501	CD	LYS	57	-5.449	-17.125	-6.537	1.00	0.00
ATOM	502	CE	LYS	57	-6.335	-18.094	-7.329	1.00	0.00
ATOM	503	NZ	LYS	57	-6.749	-17.518	-8.622	1.00	0.00
ATOM	504	C	LYS	57	-2.463	-15.059	-3.947	1.00	0.00
ATOM	505	O	LYS	57	-3.265	-14.264	-3.459	1.00	0.00
ATOM	506	N	LEU	58	-1.141	-14.871	-3.861	1.00	0.00
ATOM	507	CA	LEU	58	-0.566	-13.706	-3.197	1.00	0.00
ATOM	508	CB	LEU	58	-0.782	-13.752	-1.667	1.00	0.00
ATOM	509	CG	LEU	58	-1.018	-12.366	-1.047	1.00	0.00
ATOM	510	CD1	LEU	58	-1.284	-12.531	0.453	1.00	0.00
ATOM	511	CD2	LEU	58	0.173	-11.421	-1.246	1.00	0.00
ATOM	512	C	LEU	58	0.908	-13.553	-3.564	1.00	0.00
ATOM	513	O	LEU	58	1.280	-12.579	-4.214	1.00	0.00
ATOM	514	N	LYS	59	1.754	-14.502	-3.144	1.00	0.00
ATOM	515	CA	LYS	59	3.194	-14.432	-3.390	1.00	0.00
ATOM	516	CB	LYS	59	3.944	-15.200	-2.291	1.00	0.00
ATOM	517	CG	LYS	59	5.338	-14.606	-2.040	1.00	0.00
ATOM	518	CD	LYS	59	5.838	-14.963	-0.635	1.00	0.00
ATOM	519	CE	LYS	59	7.117	-14.184	-0.294	1.00	0.00
ATOM	520	NZ	LYS	59	7.367	-14.158	1.159	1.00	0.00
ATOM	521	C	LYS	59	3.606	-14.842	-4.808	1.00	0.00
ATOM	522	O	LYS	59	4.737	-14.577	-5.212	1.00	0.00
ATOM	523	N	LEU	60	2.701	-15.474	-5.564	1.00	0.00
ATOM	524	CA	LEU	60	2.909	-15.917	-6.935	1.00	0.00
ATOM	525	CB	LEU	60	3.089	-14.714	-7.883	1.00	0.00
ATOM	526	CG	LEU	60	2.013	-13.624	-7.734	1.00	0.00
ATOM	527	CD1	LEU	60	2.368	-12.436	-8.637	1.00	0.00
ATOM	528	CD2	LEU	60	0.615	-14.134	-8.095	1.00	0.00
ATOM	529	C	LEU	60	4.055	-16.925	-7.054	1.00	0.00
ATOM	530	O	LEU	60	4.965	-16.720	-7.854	1.00	0.00
ATOM	531	N	ILE	61	3.968	-18.007	-6.264	1.00	0.00
ATOM	532	CA	ILE	61	4.869	-19.162	-6.155	1.00	0.00
ATOM	533	CB	ILE	61	4.227	-20.381	-6.848	1.00	0.00
ATOM	534	CG2	ILE	61	5.180	-21.583	-6.955	1.00	0.00

(431)

特開2003-135087

859				860			
ATOM	535	CG1 ILE	61	2.976	-20.845	-6.082	1.00 0.00
ATOM	536	CD1 ILE	61	1.949	-21.472	-7.028	1.00 0.00
ATOM	537	C ILE	61	6.312	-18.883	-6.586	1.00 0.00
ATOM	538	O ILE	61	7.174	-18.667	-5.736	1.00 0.00
ATOM	539	N SER	62	6.578	-18.898	-7.894	1.00 0.00
ATOM	540	CA SER	62	7.891	-18.650	-8.455	1.00 0.00
ATOM	541	CB SER	62	8.670	-19.968	-8.563	1.00 0.00
ATOM	542	OG SER	62	7.953	-20.911	-9.338	1.00 0.00
ATOM	543	C SER	62	7.720	-17.962	-9.804	1.00 0.00
ATOM	544	O SER	62	7.870	-18.599	-10.847	1.00 0.00
ATOM	545	N SER	63	7.411	-16.660	-9.779	1.00 0.00
ATOM	546	CA SER	63	7.241	-15.847	-10.975	1.00 0.00
ATOM	547	CB SER	63	6.382	-14.619	-10.636	1.00 0.00
ATOM	548	OG SER	63	6.009	-13.924	-11.808	1.00 0.00
ATOM	549	C SER	63	8.637	-15.489	-11.499	1.00 0.00
ATOM	550	O SER	63	9.068	-14.339	-11.437	1.00 0.00
ATOM	551	N ASP	64	9.344	-16.512	-11.991	1.00 0.00
ATOM	552	CA ASP	64	10.699	-16.431	-12.509	1.00 0.00
ATOM	553	CB ASP	64	11.282	-17.855	-12.493	1.00 0.00
ATOM	554	CG ASP	64	12.795	-17.921	-12.678	1.00 0.00
ATOM	555	OD1 ASP	64	13.440	-16.852	-12.609	1.00 0.00
ATOM	556	OD2 ASP	64	13.280	-19.059	-12.858	1.00 0.00
ATOM	557	C ASP	64	10.711	-15.808	-13.909	1.00 0.00
ATOM	558	O ASP	64	9.661	-15.668	-14.538	1.00 0.00
ATOM	559	N SER	65	11.895	-15.430	-14.396	1.00 0.00
ATOM	560	CA SER	65	12.086	-14.815	-15.702	1.00 0.00
ATOM	561	CB SER	65	11.539	-13.379	-15.692	1.00 0.00
ATOM	562	OG SER	65	12.155	-12.619	-14.671	1.00 0.00
ATOM	563	C SER	65	13.567	-14.835	-16.089	1.00 0.00
ATOM	564	O SER	65	14.433	-15.060	-15.246	1.00 0.00
ATOM	565	N GLU	66	13.847	-14.591	-17.375	1.00 0.00
ATOM	566	CA GLU	66	15.196	-14.563	-17.918	1.00 0.00
ATOM	567	CB GLU	66	15.143	-14.480	-19.453	1.00 0.00
ATOM	568	CG GLU	66	14.248	-15.544	-20.108	1.00 0.00
ATOM	569	CD GLU	66	14.666	-16.964	-19.746	1.00 0.00
ATOM	570	OE1 GLU	66	13.861	-17.637	-19.066	1.00 0.00
ATOM	571	OE2 GLU	66	15.776	-17.355	-20.168	1.00 0.00
ATOM	572	C GLU	66	15.986	-13.378	-17.351	1.00 0.00
ATOM	573	O GLU	66	17.137	-13.546	-16.952	1.00 0.00
ATOM	574	N ASP	67	15.341	-12.203	-17.336	1.00 0.00
ATOM	575	CA ASP	67	15.844	-10.914	-16.873	1.00 0.00
ATOM	576	CB ASP	67	16.427	-10.985	-15.451	1.00 0.00
ATOM	577	CG ASP	67	16.660	-9.598	-14.857	1.00 0.00
ATOM	578	OD1 ASP	67	17.810	-9.328	-14.446	1.00 0.00
ATOM	579	OD2 ASP	67	15.672	-8.833	-14.787	1.00 0.00
ATOM	580	C ASP	67	16.795	-10.306	-17.908	1.00 0.00
ATOM	581	OT1 ASP	67	17.988	-10.682	-17.883	1.00 0.00
ATOM	582	OT2 ASP	67	16.246	-9.770	-18.897	1.00 0.00
ATOM	583	O5' GUA	68	-8.448	-38.579	11.381	1.00 0.00
ATOM	584	C5' GUA	68	-7.106	-38.260	11.069	1.00 0.00

(432)

特開2003-135087

861				862			
ATOM	585	C4' GUA	68	-6.710	-38.728	9.657	1.00 0.00
ATOM	586	O4' GUA	68	-7.858	-38.828	8.817	1.00 0.00
ATOM	587	C1' GUA	68	-8.007	-37.707	7.956	1.00 0.00
ATOM	588	N9 GUA	68	-9.307	-37.022	8.179	1.00 0.00
ATOM	589	C8 GUA	68	-9.783	-36.430	9.324	1.00 0.00
ATOM	590	N7 GUA	68	-10.991	-35.955	9.224	1.00 0.00
ATOM	591	C5 GUA	68	-11.345	-36.229	7.910	1.00 0.00
ATOM	592	C6 GUA	68	-12.559	-35.952	7.213	1.00 0.00
ATOM	593	O6 GUA	68	-13.593	-35.463	7.660	1.00 0.00
ATOM	594	N1 GUA	68	-12.491	-36.309	5.872	1.00 0.00
ATOM	595	C2 GUA	68	-11.401	-36.906	5.275	1.00 0.00
ATOM	596	N2 GUA	68	-11.473	-37.168	3.969	1.00 0.00
ATOM	597	N3 GUA	68	-10.278	-37.216	5.940	1.00 0.00
ATOM	598	C4 GUA	68	-10.309	-36.849	7.250	1.00 0.00
ATOM	599	C3' GUA	68	-5.812	-37.717	8.934	1.00 0.00
ATOM	600	C2' GUA	68	-6.832	-36.791	8.277	1.00 0.00
ATOM	601	O3' GUA	68	-5.015	-38.412	7.984	1.00 0.00
ATOM	602	P THY	69	-3.843	-37.692	7.123	1.00 0.00
ATOM	603	OP1 THY	69	-3.126	-36.747	8.008	1.00 0.00
ATOM	604	OP2 THY	69	-3.091	-38.735	6.393	1.00 0.00
ATOM	605	O5' THY	69	-4.671	-36.838	6.041	1.00 0.00
ATOM	606	C5' THY	69	-5.575	-37.469	5.157	1.00 0.00
ATOM	607	C4' THY	69	-6.603	-36.483	4.590	1.00 0.00
ATOM	608	O4' THY	69	-7.524	-35.901	5.476	1.00 0.00
ATOM	609	C1' THY	69	-8.123	-34.827	4.787	1.00 0.00
ATOM	610	N1 THY	69	-8.969	-34.038	5.718	1.00 0.00
ATOM	611	C6 THY	69	-8.537	-33.778	6.998	1.00 0.00
ATOM	612	C5 THY	69	-9.369	-33.238	7.923	1.00 0.00
ATOM	613	C7 THY	69	-8.779	-32.989	9.299	1.00 0.00
ATOM	614	C4 THY	69	-10.749	-32.924	7.611	1.00 0.00
ATOM	615	O4 THY	69	-11.584	-32.469	8.388	1.00 0.00
ATOM	616	N3 THY	69	-11.096	-33.185	6.298	1.00 0.00
ATOM	617	C2 THY	69	-10.270	-33.720	5.323	1.00 0.00
ATOM	618	O2 THY	69	-10.692	-33.891	4.183	1.00 0.00
ATOM	619	C3' THY	69	-5.979	-35.284	3.868	1.00 0.00
ATOM	620	C2' THY	69	-6.875	-34.113	4.286	1.00 0.00
ATOM	621	O3' THY	69	-5.939	-35.510	2.470	1.00 0.00
ATOM	622	P THY	70	-5.104	-34.545	1.484	1.00 0.00
ATOM	623	OP1 THY	70	-4.119	-33.816	2.308	1.00 0.00
ATOM	624	OP2 THY	70	-4.603	-35.359	0.355	1.00 0.00
ATOM	625	O5' THY	70	-6.194	-33.482	0.956	1.00 0.00
ATOM	626	C5' THY	70	-7.253	-33.854	0.092	1.00 0.00
ATOM	627	C4' THY	70	-8.390	-32.827	0.181	1.00 0.00
ATOM	628	O4' THY	70	-8.825	-32.712	1.520	1.00 0.00
ATOM	629	C1' THY	70	-9.590	-31.533	1.619	1.00 0.00
ATOM	630	N1 THY	70	-9.733	-31.100	3.030	1.00 0.00
ATOM	631	C6 THY	70	-8.628	-31.041	3.839	1.00 0.00
ATOM	632	C5 THY	70	-8.726	-30.638	5.129	1.00 0.00
ATOM	633	C7 THY	70	-7.429	-30.600	5.911	1.00 0.00
ATOM	634	C4 THY	70	-9.999	-30.263	5.712	1.00 0.00

(433)

特開 2 0 0 3 - 1 3 5 0 8 7

863					864				
ATOM	635	O4	THY	70	-10.172	-29.863	6.860	1.00	0.00
ATOM	636	N3	THY	70	-11.068	-30.382	4.843	1.00	0.00
ATOM	637	C2	THY	70	-10.994	-30.736	3.504	1.00	0.00
ATOM	638	O2	THY	70	-11.993	-30.682	2.794	1.00	0.00
ATOM	639	C3'	THY	70	-7.993	-31.393	-0.192	1.00	0.00
ATOM	640	C2'	THY	70	-8.788	-30.531	0.795	1.00	0.00
ATOM	641	O3'	THY	70	-8.299	-31.099	-1.544	1.00	0.00
ATOM	642	P	ADE	71	-7.984	-29.654	-2.194	1.00	0.00
ATOM	643	OP1	ADE	71	-8.026	-29.782	-3.665	1.00	0.00
ATOM	644	OP2	ADE	71	-6.770	-29.110	-1.537	1.00	0.00
ATOM	645	O5'	ADE	71	-9.237	-28.756	-1.728	1.00	0.00
ATOM	646	C5'	ADE	71	-10.575	-29.074	-2.074	1.00	0.00
ATOM	647	C4'	ADE	71	-11.561	-28.124	-1.369	1.00	0.00
ATOM	648	O4'	ADE	71	-11.698	-28.407	0.028	1.00	0.00
ATOM	649	C1'	ADE	71	-11.652	-27.185	0.745	1.00	0.00
ATOM	650	N9	ADE	71	-11.298	-27.329	2.177	1.00	0.00
ATOM	651	C8	ADE	71	-10.089	-27.709	2.688	1.00	0.00
ATOM	652	N7	ADE	71	-9.978	-27.645	3.982	1.00	0.00
ATOM	653	C5	ADE	71	-11.227	-27.187	4.371	1.00	0.00
ATOM	654	C6	ADE	71	-11.761	-26.882	5.632	1.00	0.00
ATOM	655	N6	ADE	71	-11.065	-27.083	6.752	1.00	0.00
ATOM	656	N1	ADE	71	-12.984	-26.328	5.701	1.00	0.00
ATOM	657	C2	ADE	71	-13.657	-26.126	4.568	1.00	0.00
ATOM	658	N3	ADE	71	-13.278	-26.405	3.322	1.00	0.00
ATOM	659	C4	ADE	71	-12.031	-26.947	3.283	1.00	0.00
ATOM	660	C3'	ADE	71	-11.086	-26.664	-1.449	1.00	0.00
ATOM	661	C2'	ADE	71	-10.516	-26.531	-0.035	1.00	0.00
ATOM	662	O3'	ADE	71	-12.213	-25.840	-1.695	1.00	0.00
ATOM	663	P	GUA	72	-12.091	-24.292	-2.118	1.00	0.00
ATOM	664	OP1	GUA	72	-10.678	-23.869	-2.003	1.00	0.00
ATOM	665	OP2	GUA	72	-12.813	-24.089	-3.391	1.00	0.00
ATOM	666	O5'	GUA	72	-12.894	-23.552	-0.948	1.00	0.00
ATOM	667	C5'	GUA	72	-14.302	-23.648	-0.863	1.00	0.00
ATOM	668	C4'	GUA	72	-14.791	-22.931	0.393	1.00	0.00
ATOM	669	O4'	GUA	72	-14.179	-23.526	1.525	1.00	0.00
ATOM	670	C1'	GUA	72	-13.703	-22.520	2.390	1.00	0.00
ATOM	671	N9	GUA	72	-12.561	-23.037	3.176	1.00	0.00
ATOM	672	C8	GUA	72	-11.380	-23.565	2.718	1.00	0.00
ATOM	673	N7	GUA	72	-10.556	-23.937	3.660	1.00	0.00
ATOM	674	C5	GUA	72	-11.249	-23.643	4.831	1.00	0.00
ATOM	675	C6	GUA	72	-10.875	-23.835	6.196	1.00	0.00
ATOM	676	O6	GUA	72	-9.806	-24.273	6.623	1.00	0.00
ATOM	677	N1	GUA	72	-11.886	-23.488	7.084	1.00	0.00
ATOM	678	C2	GUA	72	-13.113	-22.976	6.707	1.00	0.00
ATOM	679	N2	GUA	72	-13.963	-22.613	7.667	1.00	0.00
ATOM	680	N3	GUA	72	-13.453	-22.762	5.429	1.00	0.00
ATOM	681	C4	GUA	72	-12.487	-23.120	4.544	1.00	0.00
ATOM	682	C3'	GUA	72	-14.404	-21.443	0.416	1.00	0.00
ATOM	683	C2'	GUA	72	-13.260	-21.424	1.427	1.00	0.00
ATOM	684	O3'	GUA	72	-15.527	-20.683	0.820	1.00	0.00

865					866				
ATOM	685	P	GUA	73	-15.493	-19.071	0.913	1.00	0.00
ATOM	686	OP1	GUA	73	-14.288	-18.580	0.205	1.00	0.00
ATOM	687	OP2	GUA	73	-16.829	-18.555	0.544	1.00	0.00
ATOM	688	O5'	GUA	73	-15.280	-18.850	2.491	1.00	0.00
ATOM	689	C5'	GUA	73	-16.303	-19.182	3.409	1.00	0.00
ATOM	690	C4'	GUA	73	-15.827	-18.981	4.847	1.00	0.00
ATOM	691	O4'	GUA	73	-14.696	-19.797	5.106	1.00	0.00
ATOM	692	C1'	GUA	73	-13.806	-19.074	5.923	1.00	0.00
ATOM	693	N9	GUA	73	-12.440	-19.641	5.863	1.00	0.00
ATOM	694	C8	GUA	73	-11.653	-19.872	4.763	1.00	0.00
ATOM	695	N7	GUA	73	-10.491	-20.397	5.038	1.00	0.00
ATOM	696	C5	GUA	73	-10.504	-20.526	6.424	1.00	0.00
ATOM	697	C6	GUA	73	-9.524	-21.067	7.309	1.00	0.00
ATOM	698	O6	GUA	73	-8.408	-21.496	7.027	1.00	0.00
ATOM	699	N1	GUA	73	-9.962	-21.109	8.630	1.00	0.00
ATOM	700	C2	GUA	73	-11.196	-20.663	9.057	1.00	0.00
ATOM	701	N2	GUA	73	-11.474	-20.740	10.360	1.00	0.00
ATOM	702	N3	GUA	73	-12.106	-20.126	8.233	1.00	0.00
ATOM	703	C4	GUA	73	-11.704	-20.089	6.934	1.00	0.00
ATOM	704	C3'	GUA	73	-15.396	-17.535	5.158	1.00	0.00
ATOM	705	C2'	GUA	73	-13.880	-17.695	5.282	1.00	0.00
ATOM	706	O3'	GUA	73	-16.016	-17.154	6.374	1.00	0.00
ATOM	707	P	GUA	74	-15.866	-15.687	7.031	1.00	0.00
ATOM	708	OP1	GUA	74	-17.220	-15.144	7.273	1.00	0.00
ATOM	709	OP2	GUA	74	-14.882	-14.897	6.257	1.00	0.00
ATOM	710	O5'	GUA	74	-15.206	-16.062	8.451	1.00	0.00
ATOM	711	C5'	GUA	74	-15.917	-16.839	9.397	1.00	0.00
ATOM	712	C4'	GUA	74	-15.063	-17.121	10.637	1.00	0.00
ATOM	713	O4'	GUA	74	-13.862	-17.771	10.252	1.00	0.00
ATOM	714	C1'	GUA	74	-12.741	-17.085	10.773	1.00	0.00
ATOM	715	N9	GUA	74	-11.615	-17.192	9.819	1.00	0.00
ATOM	716	C8	GUA	74	-11.601	-16.858	8.489	1.00	0.00
ATOM	717	N7	GUA	74	-10.476	-17.118	7.882	1.00	0.00
ATOM	718	C5	GUA	74	-9.684	-17.671	8.882	1.00	0.00
ATOM	719	C6	GUA	74	-8.356	-18.182	8.816	1.00	0.00
ATOM	720	O6	GUA	74	-7.618	-18.231	7.837	1.00	0.00
ATOM	721	N1	GUA	74	-7.911	-18.673	10.036	1.00	0.00
ATOM	722	C2	GUA	74	-8.663	-18.684	11.192	1.00	0.00
ATOM	723	N2	GUA	74	-8.084	-19.137	12.305	1.00	0.00
ATOM	724	N3	GUA	74	-9.913	-18.205	11.257	1.00	0.00
ATOM	725	C4	GUA	74	-10.369	-17.717	10.072	1.00	0.00
ATOM	726	C3'	GUA	74	-14.652	-15.849	11.392	1.00	0.00
ATOM	727	C2'	GUA	74	-13.223	-15.642	10.899	1.00	0.00
ATOM	728	O3'	GUA	74	-14.736	-16.105	12.784	1.00	0.00
ATOM	729	P	THY	75	-14.424	-14.977	13.893	1.00	0.00
ATOM	730	OP1	THY	75	-15.258	-15.255	15.083	1.00	0.00
ATOM	731	OP2	THY	75	-14.478	-13.645	13.251	1.00	0.00
ATOM	732	O5'	THY	75	-12.893	-15.297	14.261	1.00	0.00
ATOM	733	C5'	THY	75	-12.547	-16.479	14.958	1.00	0.00
ATOM	734	C4'	THY	75	-11.032	-16.549	15.147	1.00	0.00

(435)

特開2003-135087

867

868

ATOM	735	O4'	THY	75	-10.384	-16.566	13.890	1.00	0.00
ATOM	736	C1'	THY	75	-9.129	-15.942	14.029	1.00	0.00
ATOM	737	N1	THY	75	-8.581	-15.580	12.692	1.00	0.00
ATOM	738	C6	THY	75	-9.370	-14.926	11.770	1.00	0.00
ATOM	739	C5	THY	75	-8.928	-14.688	10.509	1.00	0.00
ATOM	740	C7	THY	75	-9.880	-13.949	9.588	1.00	0.00
ATOM	741	C4	THY	75	-7.616	-15.122	10.069	1.00	0.00
ATOM	742	O4	THY	75	-7.149	-14.992	8.941	1.00	0.00
ATOM	743	N3	THY	75	-6.880	-15.752	11.055	1.00	0.00
ATOM	744	C2	THY	75	-7.291	-15.997	12.356	1.00	0.00
ATOM	745	O2	THY	75	-6.532	-16.558	13.142	1.00	0.00
ATOM	746	C3'	THY	75	-10.462	-15.334	15.900	1.00	0.00
ATOM	747	C2'	THY	75	-9.509	-14.726	14.868	1.00	0.00
ATOM	748	O3'	THY	75	-9.809	-15.790	17.073	1.00	0.00
ATOM	749	P	THY	76	-9.145	-14.784	18.149	1.00	0.00
ATOM	750	OP1	THY	76	-9.390	-15.323	19.505	1.00	0.00
ATOM	751	OP2	THY	76	-9.544	-13.397	17.823	1.00	0.00
ATOM	752	O5'	THY	76	-7.577	-14.947	17.820	1.00	0.00
ATOM	753	C5'	THY	76	-6.910	-16.164	18.097	1.00	0.00
ATOM	754	C4'	THY	76	-5.504	-16.151	17.497	1.00	0.00
ATOM	755	O4'	THY	76	-5.591	-15.871	16.107	1.00	0.00
ATOM	756	C1'	THY	76	-4.513	-15.042	15.740	1.00	0.00
ATOM	757	N1	THY	76	-4.771	-14.353	14.442	1.00	0.00
ATOM	758	C6	THY	76	-5.869	-13.537	14.277	1.00	0.00
ATOM	759	C5	THY	76	-6.150	-12.962	13.080	1.00	0.00
ATOM	760	C7	THY	76	-7.382	-12.077	13.038	1.00	0.00
ATOM	761	C4	THY	76	-5.316	-13.185	11.916	1.00	0.00
ATOM	762	O4	THY	76	-5.513	-12.744	10.785	1.00	0.00
ATOM	763	N3	THY	76	-4.219	-13.987	12.169	1.00	0.00
ATOM	764	C2	THY	76	-3.905	-14.597	13.373	1.00	0.00
ATOM	765	O2	THY	76	-2.903	-15.306	13.456	1.00	0.00
ATOM	766	C3'	THY	76	-4.574	-15.082	18.105	1.00	0.00
ATOM	767	C2'	THY	76	-4.459	-14.097	16.935	1.00	0.00
ATOM	768	O3'	THY	76	-3.358	-15.712	18.502	1.00	0.00
ATOM	769	P	ADE	77	-2.009	-14.895	18.852	1.00	0.00
ATOM	770	OP1	ADE	77	-1.146	-15.687	19.765	1.00	0.00
ATOM	771	OP2	ADE	77	-2.347	-13.497	19.193	1.00	0.00
ATOM	772	O5'	ADE	77	-1.309	-14.916	17.408	1.00	0.00
ATOM	773	C5'	ADE	77	-0.809	-16.122	16.863	1.00	0.00
ATOM	774	C4'	ADE	77	0.548	-15.888	16.201	1.00	0.00
ATOM	775	O4'	ADE	77	0.353	-15.285	14.942	1.00	0.00
ATOM	776	C1'	ADE	77	0.838	-13.959	14.919	1.00	0.00
ATOM	777	N9	ADE	77	-0.202	-13.112	14.293	1.00	0.00
ATOM	778	C8	ADE	77	-1.386	-12.652	14.819	1.00	0.00
ATOM	779	N7	ADE	77	-2.171	-12.068	13.957	1.00	0.00
ATOM	780	C5	ADE	77	-1.453	-12.141	12.772	1.00	0.00
ATOM	781	C6	ADE	77	-1.726	-11.714	11.459	1.00	0.00
ATOM	782	N6	ADE	77	-2.867	-11.113	11.122	1.00	0.00
ATOM	783	N1	ADE	77	-0.794	-11.914	10.512	1.00	0.00
ATOM	784	C2	ADE	77	0.337	-12.529	10.841	1.00	0.00

869

870

ATOM	785	N3	ADE	77	0.697	-13.020	12.022	1.00	0.00
ATOM	786	C4	ADE	77	-0.249	-12.769	12.966	1.00	0.00
ATOM	787	C3'	ADE	77	1.457	-14.944	16.998	1.00	0.00
ATOM	788	C2'	ADE	77	1.151	-13.586	16.370	1.00	0.00
ATOM	789	O3'	ADE	77	2.809	-15.346	16.863	1.00	0.00
ATOM	790	P	GUA	78	3.978	-14.722	17.787	1.00	0.00
ATOM	791	OP1	GUA	78	3.370	-14.399	19.101	1.00	0.00
ATOM	792	OP2	GUA	78	5.132	-15.645	17.739	1.00	0.00
ATOM	793	O5'	GUA	78	4.370	-13.379	16.989	1.00	0.00
ATOM	794	C5'	GUA	78	5.159	-13.472	15.814	1.00	0.00
ATOM	795	C4'	GUA	78	4.964	-12.291	14.860	1.00	0.00
ATOM	796	O4'	GUA	78	3.605	-12.028	14.576	1.00	0.00
ATOM	797	C1'	GUA	78	3.566	-10.747	13.991	1.00	0.00
ATOM	798	N9	GUA	78	2.182	-10.221	13.925	1.00	0.00
ATOM	799	C8	GUA	78	1.261	-10.113	14.937	1.00	0.00
ATOM	800	N7	GUA	78	0.114	-9.617	14.565	1.00	0.00
ATOM	801	C5	GUA	78	0.281	-9.370	13.206	1.00	0.00
ATOM	802	C6	GUA	78	-0.633	-8.837	12.246	1.00	0.00
ATOM	803	O6	GUA	78	-1.792	-8.464	12.415	1.00	0.00
ATOM	804	N1	GUA	78	-0.086	-8.777	10.969	1.00	0.00
ATOM	805	C2	GUA	78	1.191	-9.187	10.647	1.00	0.00
ATOM	806	N2	GUA	78	1.569	-9.087	9.373	1.00	0.00
ATOM	807	N3	GUA	78	2.051	-9.685	11.545	1.00	0.00
ATOM	808	C4	GUA	78	1.540	-9.748	12.804	1.00	0.00
ATOM	809	C3'	GUA	78	5.545	-10.957	15.348	1.00	0.00
ATOM	810	C2'	GUA	78	4.439	-9.959	14.964	1.00	0.00
ATOM	811	O3'	GUA	78	6.779	-10.763	14.677	1.00	0.00
ATOM	812	P	GUA	79	7.666	-9.423	14.822	1.00	0.00
ATOM	813	OP1	GUA	79	7.299	-8.742	16.082	1.00	0.00
ATOM	814	OP2	GUA	79	9.078	-9.777	14.558	1.00	0.00
ATOM	815	O5'	GUA	79	7.128	-8.544	13.582	1.00	0.00
ATOM	816	C5'	GUA	79	7.327	-8.977	12.249	1.00	0.00
ATOM	817	C4'	GUA	79	6.543	-8.108	11.262	1.00	0.00
ATOM	818	O4'	GUA	79	5.167	-8.101	11.606	1.00	0.00
ATOM	819	C1'	GUA	79	4.646	-6.819	11.335	1.00	0.00
ATOM	820	N9	GUA	79	3.387	-6.588	12.079	1.00	0.00
ATOM	821	C8	GUA	79	3.149	-6.718	13.423	1.00	0.00
ATOM	822	N7	GUA	79	1.922	-6.458	13.779	1.00	0.00
ATOM	823	C5	GUA	79	1.300	-6.107	12.587	1.00	0.00
ATOM	824	C6	GUA	79	-0.044	-5.700	12.334	1.00	0.00
ATOM	825	O6	GUA	79	-0.968	-5.589	13.135	1.00	0.00
ATOM	826	N1	GUA	79	-0.267	-5.412	10.993	1.00	0.00
ATOM	827	C2	GUA	79	0.686	-5.503	10.003	1.00	0.00
ATOM	828	N2	GUA	79	0.348	-5.092	8.780	1.00	0.00
ATOM	829	N3	GUA	79	1.945	-5.895	10.234	1.00	0.00
ATOM	830	C4	GUA	79	2.190	-6.180	11.541	1.00	0.00
ATOM	831	C3'	GUA	79	6.988	-6.635	11.232	1.00	0.00
ATOM	832	C2'	GUA	79	5.775	-5.930	11.840	1.00	0.00
ATOM	833	O3'	GUA	79	7.230	-6.270	9.881	1.00	0.00
ATOM	834	P	GUA	80	7.710	-4.792	9.439	1.00	0.00

(437)

特開2003-135087

871

872

ATOM	835	OP1	GUA	80	8.151	-4.050	10.641	1.00	0.00
ATOM	836	OP2	GUA	80	8.621	-4.925	8.281	1.00	0.00
ATOM	837	O5'	GUA	80	6.334	-4.132	8.918	1.00	0.00
ATOM	838	C5'	GUA	80	5.704	-4.602	7.740	1.00	0.00
ATOM	839	C4'	GUA	80	4.453	-3.776	7.427	1.00	0.00
ATOM	840	O4'	GUA	80	3.522	-3.899	8.488	1.00	0.00
ATOM	841	C1'	GUA	80	2.977	-2.631	8.785	1.00	0.00
ATOM	842	N9	GUA	80	2.452	-2.608	10.168	1.00	0.00
ATOM	843	C8	GUA	80	3.107	-2.917	11.333	1.00	0.00
ATOM	844	N7	GUA	80	2.344	-2.912	12.391	1.00	0.00
ATOM	845	C5	GUA	80	1.090	-2.573	11.897	1.00	0.00
ATOM	846	C6	GUA	80	-0.167	-2.475	12.566	1.00	0.00
ATOM	847	O6	GUA	80	-0.413	-2.661	13.756	1.00	0.00
ATOM	848	N1	GUA	80	-1.205	-2.153	11.700	1.00	0.00
ATOM	849	C2	GUA	80	-1.060	-1.939	10.346	1.00	0.00
ATOM	850	N2	GUA	80	-2.151	-1.607	9.652	1.00	0.00
ATOM	851	N3	GUA	80	0.116	-2.041	9.711	1.00	0.00
ATOM	852	C4	GUA	80	1.148	-2.368	10.537	1.00	0.00
ATOM	853	C3'	GUA	80	4.743	-2.272	7.298	1.00	0.00
ATOM	854	C2'	GUA	80	4.185	-1.716	8.604	1.00	0.00
ATOM	855	O3'	GUA	80	4.031	-1.723	6.209	1.00	0.00
ATOM	856	O5'	CYT	81	-10.459	-1.596	14.332	1.00	0.00
ATOM	857	C5'	CYT	81	-10.356	-0.551	13.386	1.00	0.00
ATOM	858	C4'	CYT	81	-9.203	-0.811	12.410	1.00	0.00
ATOM	859	O4'	CYT	81	-7.980	-0.965	13.096	1.00	0.00
ATOM	860	C1'	CYT	81	-7.090	-1.623	12.222	1.00	0.00
ATOM	861	N1	CYT	81	-5.946	-2.217	12.955	1.00	0.00
ATOM	862	C6	CYT	81	-6.164	-2.896	14.127	1.00	0.00
ATOM	863	C5	CYT	81	-5.159	-3.517	14.782	1.00	0.00
ATOM	864	C4	CYT	81	-3.847	-3.420	14.206	1.00	0.00
ATOM	865	N4	CYT	81	-2.801	-3.996	14.801	1.00	0.00
ATOM	866	N3	CYT	81	-3.647	-2.775	13.051	1.00	0.00
ATOM	867	C2	CYT	81	-4.674	-2.178	12.385	1.00	0.00
ATOM	868	O2	CYT	81	-4.463	-1.631	11.306	1.00	0.00
ATOM	869	C3'	CYT	81	-9.365	-2.104	11.595	1.00	0.00
ATOM	870	C2'	CYT	81	-7.969	-2.724	11.649	1.00	0.00
ATOM	871	O3'	CYT	81	-9.787	-1.781	10.278	1.00	0.00
ATOM	872	P	CYT	82	-10.034	-2.901	9.137	1.00	0.00
ATOM	873	OP1	CYT	82	-10.288	-4.195	9.808	1.00	0.00
ATOM	874	OP2	CYT	82	-11.022	-2.363	8.177	1.00	0.00
ATOM	875	O5'	CYT	82	-8.604	-2.999	8.388	1.00	0.00
ATOM	876	C5'	CYT	82	-8.095	-1.924	7.620	1.00	0.00
ATOM	877	C4'	CYT	82	-6.710	-2.260	7.047	1.00	0.00
ATOM	878	O4'	CYT	82	-5.806	-2.539	8.097	1.00	0.00
ATOM	879	C1'	CYT	82	-4.984	-3.640	7.764	1.00	0.00
ATOM	880	N1	CYT	82	-4.648	-4.343	9.024	1.00	0.00
ATOM	881	C6	CYT	82	-5.663	-4.696	9.870	1.00	0.00
ATOM	882	C5	CYT	82	-5.435	-5.281	11.059	1.00	0.00
ATOM	883	C4	CYT	82	-4.063	-5.517	11.409	1.00	0.00
ATOM	884	N4	CYT	82	-3.757	-6.129	12.553	1.00	0.00

873				874				
ATOM	885	N3	CYT	82	-3.071	-5.192	10.568	1.00 0.00
ATOM	886	C2	CYT	82	-3.325	-4.620	9.356	1.00 0.00
ATOM	887	O2	CYT	82	-2.399	-4.385	8.583	1.00 0.00
ATOM	888	C3'	CYT	82	-6.711	-3.492	6.129	1.00 0.00
ATOM	889	C2'	CYT	82	-5.890	-4.515	6.901	1.00 0.00
ATOM	890	O3'	CYT	82	-6.128	-3.132	4.884	1.00 0.00
ATOM	891	P	CYT	83	-6.101	-4.126	3.609	1.00 0.00
ATOM	892	OP1	CYT	83	-7.189	-5.116	3.766	1.00 0.00
ATOM	893	OP2	CYT	83	-6.031	-3.296	2.385	1.00 0.00
ATOM	894	O5'	CYT	83	-4.695	-4.898	3.773	1.00 0.00
ATOM	895	C5'	CYT	83	-3.471	-4.326	3.342	1.00 0.00
ATOM	896	C4'	CYT	83	-2.303	-5.226	3.764	1.00 0.00
ATOM	897	O4'	CYT	83	-2.356	-5.407	5.163	1.00 0.00
ATOM	898	C1'	CYT	83	-1.633	-6.565	5.514	1.00 0.00
ATOM	899	N1	CYT	83	-2.229	-7.162	6.736	1.00 0.00
ATOM	900	C6	CYT	83	-3.590	-7.243	6.852	1.00 0.00
ATOM	901	C5	CYT	83	-4.184	-7.635	8.000	1.00 0.00
ATOM	902	C4	CYT	83	-3.314	-7.992	9.085	1.00 0.00
ATOM	903	N4	CYT	83	-3.824	-8.360	10.260	1.00 0.00
ATOM	904	N3	CYT	83	-1.982	-8.002	8.936	1.00 0.00
ATOM	905	C2	CYT	83	-1.405	-7.620	7.760	1.00 0.00
ATOM	906	O2	CYT	83	-0.189	-7.708	7.611	1.00 0.00
ATOM	907	C3'	CYT	83	-2.383	-6.645	3.188	1.00 0.00
ATOM	908	C2'	CYT	83	-1.824	-7.502	4.324	1.00 0.00
ATOM	909	O3'	CYT	83	-1.633	-6.777	1.991	1.00 0.00
ATOM	910	P	THY	84	-1.587	-8.163	1.147	1.00 0.00
ATOM	911	OP1	THY	84	-2.876	-8.866	1.331	1.00 0.00
ATOM	912	OP2	THY	84	-1.108	-7.854	-0.219	1.00 0.00
ATOM	913	O5'	THY	84	-0.447	-9.035	1.885	1.00 0.00
ATOM	914	C5'	THY	84	0.910	-8.634	1.870	1.00 0.00
ATOM	915	C4'	THY	84	1.742	-9.502	2.822	1.00 0.00
ATOM	916	O4'	THY	84	1.143	-9.491	4.108	1.00 0.00
ATOM	917	C1'	THY	84	1.048	-10.805	4.614	1.00 0.00
ATOM	918	N1	THY	84	-0.101	-10.899	5.561	1.00 0.00
ATOM	919	C6	THY	84	-1.395	-10.723	5.119	1.00 0.00
ATOM	920	C5	THY	84	-2.443	-10.745	5.980	1.00 0.00
ATOM	921	C7	THY	84	-3.834	-10.613	5.385	1.00 0.00
ATOM	922	C4	THY	84	-2.247	-10.919	7.402	1.00 0.00
ATOM	923	O4	THY	84	-3.130	-10.903	8.253	1.00 0.00
ATOM	924	N3	THY	84	-0.926	-11.108	7.768	1.00 0.00
ATOM	925	C2	THY	84	0.165	-11.119	6.915	1.00 0.00
ATOM	926	O2	THY	84	1.292	-11.317	7.363	1.00 0.00
ATOM	927	C3'	THY	84	1.850	-10.976	2.400	1.00 0.00
ATOM	928	C2'	THY	84	0.866	-11.650	3.355	1.00 0.00
ATOM	929	O3'	THY	84	3.195	-11.395	2.575	1.00 0.00
ATOM	930	P	ADE	85	3.721	-12.849	2.111	1.00 0.00
ATOM	931	OP1	ADE	85	5.203	-12.830	2.078	1.00 0.00
ATOM	932	OP2	ADE	85	2.977	-13.276	0.906	1.00 0.00
ATOM	933	O5'	ADE	85	3.277	-13.783	3.336	1.00 0.00
ATOM	934	C5'	ADE	85	3.928	-13.701	4.588	1.00 0.00

875				876				
ATOM	935	C4'	ADE	85	3.172	-14.515	5.640	1.00 0.00
ATOM	936	O4'	ADE	85	1.904	-13.970	5.933	1.00 0.00
ATOM	937	C1'	ADE	85	1.199	-14.968	6.636	1.00 0.00
ATOM	938	N9	ADE	85	-0.239	-14.649	6.699	1.00 0.00
ATOM	939	C8	ADE	85	-1.057	-14.243	5.676	1.00 0.00
ATOM	940	N7	ADE	85	-2.271	-13.948	6.049	1.00 0.00
ATOM	941	C5	ADE	85	-2.259	-14.188	7.420	1.00 0.00
ATOM	942	C6	ADE	85	-3.226	-14.033	8.432	1.00 0.00
ATOM	943	N6	ADE	85	-4.460	-13.571	8.218	1.00 0.00
ATOM	944	N1	ADE	85	-2.882	-14.350	9.689	1.00 0.00
ATOM	945	C2	ADE	85	-1.664	-14.806	9.936	1.00 0.00
ATOM	946	N3	ADE	85	-0.661	-15.007	9.089	1.00 0.00
ATOM	947	C4	ADE	85	-1.029	-14.652	7.823	1.00 0.00
ATOM	948	C3'	ADE	85	2.873	-15.958	5.215	1.00 0.00
ATOM	949	C2'	ADE	85	1.460	-16.191	5.771	1.00 0.00
ATOM	950	O3'	ADE	85	3.871	-16.803	5.755	1.00 0.00
ATOM	951	P	ADE	86	3.791	-18.402	5.628	1.00 0.00
ATOM	952	OP1	ADE	86	5.166	-18.945	5.643	1.00 0.00
ATOM	953	OP2	ADE	86	2.882	-18.717	4.501	1.00 0.00
ATOM	954	O5'	ADE	86	3.063	-18.813	6.992	1.00 0.00
ATOM	955	C5'	ADE	86	3.580	-18.413	8.242	1.00 0.00
ATOM	956	C4'	ADE	86	2.547	-18.742	9.313	1.00 0.00
ATOM	957	O4'	ADE	86	1.328	-18.079	9.032	1.00 0.00
ATOM	958	C1'	ADE	86	0.247	-18.899	9.420	1.00 0.00
ATOM	959	N9	ADE	86	-0.979	-18.433	8.727	1.00 0.00
ATOM	960	C8	ADE	86	-1.163	-18.225	7.382	1.00 0.00
ATOM	961	N7	ADE	86	-2.318	-17.710	7.066	1.00 0.00
ATOM	962	C5	ADE	86	-2.962	-17.581	8.287	1.00 0.00
ATOM	963	C6	ADE	86	-4.235	-17.098	8.650	1.00 0.00
ATOM	964	N6	ADE	86	-5.125	-16.668	7.755	1.00 0.00
ATOM	965	N1	ADE	86	-4.548	-17.030	9.956	1.00 0.00
ATOM	966	C2	ADE	86	-3.653	-17.427	10.852	1.00 0.00
ATOM	967	N3	ADE	86	-2.430	-17.907	10.640	1.00 0.00
ATOM	968	C4	ADE	86	-2.142	-17.981	9.311	1.00 0.00
ATOM	969	C3'	ADE	86	2.217	-20.239	9.364	1.00 0.00
ATOM	970	C2'	ADE	86	0.735	-20.272	8.968	1.00 0.00
ATOM	971	O3'	ADE	86	2.508	-20.669	10.681	1.00 0.00
ATOM	972	P	CYT	87	2.418	-22.207	11.150	1.00 0.00
ATOM	973	OP1	CYT	87	2.414	-23.085	9.953	1.00 0.00
ATOM	974	OP2	CYT	87	3.448	-22.410	12.194	1.00 0.00
ATOM	975	O5'	CYT	87	0.961	-22.206	11.845	1.00 0.00
ATOM	976	C5'	CYT	87	0.738	-21.452	13.030	1.00 0.00
ATOM	977	C4'	CYT	87	-0.752	-21.280	13.347	1.00 0.00
ATOM	978	O4'	CYT	87	-1.445	-20.695	12.261	1.00 0.00
ATOM	979	C1'	CYT	87	-2.807	-21.053	12.375	1.00 0.00
ATOM	980	N1	CYT	87	-3.522	-20.876	11.083	1.00 0.00
ATOM	981	C6	CYT	87	-2.918	-21.236	9.907	1.00 0.00
ATOM	982	C5	CYT	87	-3.514	-21.027	8.714	1.00 0.00
ATOM	983	C4	CYT	87	-4.806	-20.406	8.727	1.00 0.00
ATOM	984	N4	CYT	87	-5.420	-20.094	7.587	1.00 0.00

(440)

特開2003-135087

877

878

ATOM	985	N3	CYT	87	-5.415	-20.108	9.881	1.00	0.00
ATOM	986	C2	CYT	87	-4.810	-20.343	11.078	1.00	0.00
ATOM	987	O2	CYT	87	-5.399	-20.070	12.121	1.00	0.00
ATOM	988	C3'	CYT	87	-1.495	-22.589	13.663	1.00	0.00
ATOM	989	C2'	CYT	87	-2.694	-22.529	12.720	1.00	0.00
ATOM	990	O3'	CYT	87	-1.874	-22.582	15.030	1.00	0.00
ATOM	991	P	CYT	88	-2.607	-23.837	15.743	1.00	0.00
ATOM	992	OP1	CYT	88	-2.348	-23.748	17.196	1.00	0.00
ATOM	993	OP2	CYT	88	-2.247	-25.069	15.005	1.00	0.00
ATOM	994	O5'	CYT	88	-4.175	-23.547	15.491	1.00	0.00
ATOM	995	C5'	CYT	88	-4.859	-22.520	16.189	1.00	0.00
ATOM	996	C4'	CYT	88	-6.285	-22.366	15.650	1.00	0.00
ATOM	997	O4'	CYT	88	-6.249	-22.084	14.267	1.00	0.00
ATOM	998	C1'	CYT	88	-7.437	-22.553	13.668	1.00	0.00
ATOM	999	N1	CYT	88	-7.189	-22.784	12.224	1.00	0.00
ATOM	1000	C6	CYT	88	-6.047	-23.432	11.841	1.00	0.00
ATOM	1001	C5	CYT	88	-5.717	-23.590	10.544	1.00	0.00
ATOM	1002	C4	CYT	88	-6.633	-23.053	9.577	1.00	0.00
ATOM	1003	N4	CYT	88	-6.358	-23.123	8.274	1.00	0.00
ATOM	1004	N3	CYT	88	-7.784	-22.478	9.955	1.00	0.00
ATOM	1005	C2	CYT	88	-8.103	-22.340	11.273	1.00	0.00
ATOM	1006	O2	CYT	88	-9.184	-21.852	11.590	1.00	0.00
ATOM	1007	C3'	CYT	88	-7.145	-23.634	15.793	1.00	0.00
ATOM	1008	C2'	CYT	88	-7.653	-23.884	14.375	1.00	0.00
ATOM	1009	O3'	CYT	88	-8.184	-23.390	16.730	1.00	0.00
ATOM	1010	P	CYT	89	-9.310	-24.491	17.101	1.00	0.00
ATOM	1011	OP1	CYT	89	-9.763	-24.240	18.486	1.00	0.00
ATOM	1012	OP2	CYT	89	-8.800	-25.828	16.725	1.00	0.00
ATOM	1013	O5'	CYT	89	-10.521	-24.119	16.100	1.00	0.00
ATOM	1014	C5'	CYT	89	-11.274	-22.929	16.258	1.00	0.00
ATOM	1015	C4'	CYT	89	-12.317	-22.805	15.141	1.00	0.00
ATOM	1016	O4'	CYT	89	-11.666	-22.847	13.887	1.00	0.00
ATOM	1017	C1'	CYT	89	-12.482	-23.498	12.938	1.00	0.00
ATOM	1018	N1	CYT	89	-11.605	-24.118	11.913	1.00	0.00
ATOM	1019	C6	CYT	89	-10.515	-24.842	12.318	1.00	0.00
ATOM	1020	C5	CYT	89	-9.621	-25.338	11.440	1.00	0.00
ATOM	1021	C4	CYT	89	-9.871	-25.078	10.051	1.00	0.00
ATOM	1022	N4	CYT	89	-9.028	-25.523	9.120	1.00	0.00
ATOM	1023	N3	CYT	89	-10.966	-24.415	9.651	1.00	0.00
ATOM	1024	C2	CYT	89	-11.866	-23.936	10.558	1.00	0.00
ATOM	1025	O2	CYT	89	-12.888	-23.378	10.170	1.00	0.00
ATOM	1026	C3'	CYT	89	-13.339	-23.954	15.139	1.00	0.00
ATOM	1027	C2'	CYT	89	-13.174	-24.579	13.758	1.00	0.00
ATOM	1028	O3'	CYT	89	-14.643	-23.438	15.363	1.00	0.00
ATOM	1029	P	THY	90	-15.962	-24.376	15.419	1.00	0.00
ATOM	1030	OP1	THY	90	-16.948	-23.733	16.315	1.00	0.00
ATOM	1031	OP2	THY	90	-15.537	-25.770	15.673	1.00	0.00
ATOM	1032	O5'	THY	90	-16.531	-24.301	13.911	1.00	0.00
ATOM	1033	C5'	THY	90	-17.044	-23.094	13.379	1.00	0.00
ATOM	1034	C4'	THY	90	-17.399	-23.269	11.899	1.00	0.00

(441)

特開2003-135087

879

880

ATOM	1035	O4'	THY	90	-16.259	-23.730	11.201	1.00	0.00
ATOM	1036	C1'	THY	90	-16.640	-24.688	10.239	1.00	0.00
ATOM	1037	N1	THY	90	-15.469	-25.565	9.975	1.00	0.00
ATOM	1038	C6	THY	90	-14.874	-26.232	11.017	1.00	0.00
ATOM	1039	C5	THY	90	-13.720	-26.918	10.849	1.00	0.00
ATOM	1040	C7	THY	90	-13.183	-27.651	12.064	1.00	0.00
ATOM	1041	C4	THY	90	-13.048	-26.954	9.570	1.00	0.00
ATOM	1042	O4	THY	90	-11.968	-27.497	9.358	1.00	0.00
ATOM	1043	N3	THY	90	-13.729	-26.301	8.550	1.00	0.00
ATOM	1044	C2	THY	90	-14.938	-25.632	8.687	1.00	0.00
ATOM	1045	O2	THY	90	-15.495	-25.155	7.703	1.00	0.00
ATOM	1046	C3'	THY	90	-18.513	-24.301	11.649	1.00	0.00
ATOM	1047	C2'	THY	90	-17.781	-25.434	10.931	1.00	0.00
ATOM	1048	O3'	THY	90	-19.522	-23.702	10.848	1.00	0.00
ATOM	1049	P	ADE	91	-20.932	-24.430	10.534	1.00	0.00
ATOM	1050	OP1	ADE	91	-21.895	-23.396	10.096	1.00	0.00
ATOM	1051	OP2	ADE	91	-21.269	-25.313	11.672	1.00	0.00
ATOM	1052	O5'	ADE	91	-20.584	-25.360	9.265	1.00	0.00
ATOM	1053	C5'	ADE	91	-20.446	-24.811	7.969	1.00	0.00
ATOM	1054	C4'	ADE	91	-19.871	-25.847	6.998	1.00	0.00
ATOM	1055	O4'	ADE	91	-18.566	-26.234	7.366	1.00	0.00
ATOM	1056	C1'	ADE	91	-18.282	-27.412	6.649	1.00	0.00
ATOM	1057	N9	ADE	91	-17.105	-28.088	7.226	1.00	0.00
ATOM	1058	C8	ADE	91	-16.856	-28.357	8.546	1.00	0.00
ATOM	1059	N7	ADE	91	-15.676	-28.868	8.773	1.00	0.00
ATOM	1060	C5	ADE	91	-15.119	-28.971	7.500	1.00	0.00
ATOM	1061	C6	ADE	91	-13.868	-29.416	7.028	1.00	0.00
ATOM	1062	N6	ADE	91	-12.889	-29.815	7.841	1.00	0.00
ATOM	1063	N1	ADE	91	-13.655	-29.449	5.700	1.00	0.00
ATOM	1064	C2	ADE	91	-14.623	-29.047	4.880	1.00	0.00
ATOM	1065	N3	ADE	91	-15.814	-28.553	5.198	1.00	0.00
ATOM	1066	C4	ADE	91	-16.004	-28.540	6.545	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.655	-27.166	6.925	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.549	-28.225	6.869	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.491	-27.126	5.778	1.00	0.00
ATOM	1070	P	ADE	92	-22.387	-28.377	5.287	1.00	0.00
ATOM	1071	OP1	ADE	92	-22.699	-29.228	6.456	1.00	0.00
ATOM	1072	OP2	ADE	92	-23.482	-27.854	4.441	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.366	-29.184	4.333	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.827	-28.586	3.169	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.738	-29.475	2.561	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.696	-29.684	3.501	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.236	-31.014	3.389	1.00	0.00
ATOM	1078	N9	ADE	92	-17.541	-31.418	4.632	1.00	0.00
ATOM	1079	C8	ADE	92	-18.016	-31.373	5.919	1.00	0.00
ATOM	1080	N7	ADE	92	-17.151	-31.723	6.830	1.00	0.00
ATOM	1081	C5	ADE	92	-16.017	-32.033	6.091	1.00	0.00
ATOM	1082	C6	ADE	92	-14.729	-32.468	6.459	1.00	0.00
ATOM	1083	N6	ADE	92	-14.370	-32.627	7.735	1.00	0.00
ATOM	1084	N1	ADE	92	-13.825	-32.699	5.490	1.00	0.00

(442)

特開2003-135087

881

882

ATOM	1085	C2	ADE	92	-14.180	-32.506	4.222	1.00	0.00
ATOM	1086	N3	ADE	92	-15.350	-32.093	3.746	1.00	0.00
ATOM	1087	C4	ADE	92	-16.244	-31.864	4.747	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.248	-30.870	2.166	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.553	-31.762	3.197	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.844	-31.139	0.833	1.00	0.00
ATOM	1091	P	CYT	93	-20.308	-32.463	0.034	1.00	0.00
ATOM	1092	OP1	CYT	93	-20.621	-32.081	-1.361	1.00	0.00
ATOM	1093	OP2	CYT	93	-21.312	-33.189	0.842	1.00	0.00
ATOM	1094	O5'	CYT	93	-18.956	-33.334	0.024	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.867	-32.989	-0.811	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.691	-33.926	-0.527	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.356	-33.833	0.839	1.00	0.00
ATOM	1098	C1'	CYT	93	-15.799	-35.053	1.269	1.00	0.00
ATOM	1099	N1	CYT	93	-15.992	-35.175	2.736	1.00	0.00
ATOM	1100	C6	CYT	93	-17.197	-34.835	3.300	1.00	0.00
ATOM	1101	C5	CYT	93	-17.401	-34.901	4.634	1.00	0.00
ATOM	1102	C4	CYT	93	-16.290	-35.329	5.437	1.00	0.00
ATOM	1103	N4	CYT	93	-16.373	-35.319	6.768	1.00	0.00
ATOM	1104	N3	CYT	93	-15.125	-35.682	4.880	1.00	0.00
ATOM	1105	C2	CYT	93	-14.943	-35.629	3.530	1.00	0.00
ATOM	1106	O2	CYT	93	-13.869	-35.975	3.045	1.00	0.00
ATOM	1107	C3'	CYT	93	-17.032	-35.405	-0.763	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.622	-36.107	0.529	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.305	-35.925	-1.856	1.00	0.00

END

HEADER 000000

REMARK 0.00527 1.61852 0.02472 0.01732 1.97287 1.62082
0.00000

REMARK 2.37130 0.21516 0.52357 0.96938 0.66319

REMARK 0.00916 0.00410 0.00666 0.01563 0.00828

REMARK 113 111 2 0 0 0
0

REMARK 1378 305 460 273 340

REMARK 0.03197 0.14115 0.02962 0.03774 0.14115 0.12849

REMARK 2.59871 0.18172

REMARK 2 1 1 0 0 0
0

ATOM	1	N	GLU	1	21.759	-18.967	12.574	1.00	0.00
ATOM	2	CA	GLU	1	20.300	-19.153	12.643	1.00	0.00
ATOM	3	CB	GLU	1	19.807	-20.037	11.494	1.00	0.00
ATOM	4	CG	GLU	1	20.299	-19.631	10.102	1.00	0.00
ATOM	5	CD	GLU	1	19.668	-20.510	9.023	1.00	0.00
ATOM	6	OE1	GLU	1	19.847	-20.165	7.838	1.00	0.00

883

884

ATOM	7	OE2	GLU	1	19.023	-21.514	9.404	1.00	0.00
ATOM	8	C	GLU	1	19.907	-19.787	13.979	1.00	0.00
ATOM	9	O	GLU	1	20.781	-20.106	14.781	1.00	0.00
ATOM	10	N	LYS	2	18.598	-19.975	14.198	1.00	0.00
ATOM	11	CA	LYS	2	18.019	-20.578	15.395	1.00	0.00
ATOM	12	CB	LYS	2	18.247	-22.105	15.418	1.00	0.00
ATOM	13	CG	LYS	2	17.501	-22.905	14.333	1.00	0.00
ATOM	14	CD	LYS	2	18.114	-22.788	12.930	1.00	0.00
ATOM	15	CE	LYS	2	17.468	-23.767	11.941	1.00	0.00
ATOM	16	NZ	LYS	2	18.131	-23.730	10.619	1.00	0.00
ATOM	17	C	LYS	2	18.531	-19.881	16.665	1.00	0.00
ATOM	18	O	LYS	2	18.914	-20.536	17.632	1.00	0.00
ATOM	19	N	HIS	3	18.527	-18.543	16.649	1.00	0.00
ATOM	20	CA	HIS	3	18.965	-17.695	17.746	1.00	0.00
ATOM	21	CB	HIS	3	20.149	-16.837	17.278	1.00	0.00
ATOM	22	CG	HIS	3	20.665	-15.904	18.345	1.00	0.00
ATOM	23	ND1	HIS	3	20.016	-14.723	18.674	1.00	0.00
ATOM	24	CE1	HIS	3	20.725	-14.135	19.650	1.00	0.00
ATOM	25	NE2	HIS	3	21.805	-14.838	19.999	1.00	0.00
ATOM	26	CD2	HIS	3	21.763	-15.956	19.171	1.00	0.00
ATOM	27	C	HIS	3	17.772	-16.850	18.188	1.00	0.00
ATOM	28	O	HIS	3	17.528	-15.785	17.622	1.00	0.00
ATOM	29	N	ARG	4	17.035	-17.335	19.195	1.00	0.00
ATOM	30	CA	ARG	4	15.853	-16.685	19.748	1.00	0.00
ATOM	31	CB	ARG	4	16.248	-15.421	20.537	1.00	0.00
ATOM	32	CG	ARG	4	15.080	-14.709	21.239	1.00	0.00
ATOM	33	CD	ARG	4	14.329	-15.608	22.231	1.00	0.00
ATOM	34	NE	ARG	4	13.269	-14.869	22.933	1.00	0.00
ATOM	35	CZ	ARG	4	13.441	-14.060	23.993	1.00	0.00
ATOM	36	NH1	ARG	4	14.665	-13.835	24.489	1.00	0.00
ATOM	37	NH2	ARG	4	12.377	-13.473	24.554	1.00	0.00
ATOM	38	C	ARG	4	14.834	-16.431	18.632	1.00	0.00
ATOM	39	O	ARG	4	14.611	-15.295	18.220	1.00	0.00
ATOM	40	N	ALA	5	14.218	-17.513	18.143	1.00	0.00
ATOM	41	CA	ALA	5	13.222	-17.471	17.082	1.00	0.00
ATOM	42	CB	ALA	5	13.133	-18.861	16.436	1.00	0.00
ATOM	43	C	ALA	5	11.882	-16.958	17.630	1.00	0.00
ATOM	44	O	ALA	5	11.863	-16.024	18.432	1.00	0.00
ATOM	45	N	ARG	6	10.762	-17.550	17.205	1.00	0.00
ATOM	46	CA	ARG	6	9.414	-17.187	17.626	1.00	0.00
ATOM	47	CB	ARG	6	8.791	-16.226	16.589	1.00	0.00
ATOM	48	CG	ARG	6	8.336	-14.882	17.188	1.00	0.00
ATOM	49	CD	ARG	6	9.229	-13.707	16.775	1.00	0.00
ATOM	50	NE	ARG	6	10.619	-13.890	17.202	1.00	0.00
ATOM	51	CZ	ARG	6	11.642	-13.082	16.879	1.00	0.00
ATOM	52	NH1	ARG	6	11.451	-11.986	16.136	1.00	0.00
ATOM	53	NH2	ARG	6	12.876	-13.383	17.301	1.00	0.00
ATOM	54	C	ARG	6	8.598	-18.478	17.778	1.00	0.00
ATOM	55	O	ARG	6	9.108	-19.564	17.501	1.00	0.00
ATOM	56	N	LYS	7	7.337	-18.366	18.212	1.00	0.00

885					886				
ATOM	57	CA	LYS	7	6.450	-19.511	18.375	1.00	0.00
ATOM	58	CB	LYS	7	5.197	-19.093	19.168	1.00	0.00
ATOM	59	CG	LYS	7	4.000	-20.048	19.064	1.00	0.00
ATOM	60	CD	LYS	7	4.298	-21.459	19.583	1.00	0.00
ATOM	61	CE	LYS	7	3.043	-22.329	19.440	1.00	0.00
ATOM	62	NZ	LYS	7	3.278	-23.713	19.890	1.00	0.00
ATOM	63	C	LYS	7	6.123	-20.067	16.989	1.00	0.00
ATOM	64	O	LYS	7	6.281	-21.263	16.746	1.00	0.00
ATOM	65	N	ARG	8	5.677	-19.197	16.080	1.00	0.00
ATOM	66	CA	ARG	8	5.348	-19.573	14.719	1.00	0.00
ATOM	67	CB	ARG	8	4.348	-18.586	14.112	1.00	0.00
ATOM	68	CG	ARG	8	2.974	-18.705	14.776	1.00	0.00
ATOM	69	CD	ARG	8	1.958	-17.906	13.956	1.00	0.00
ATOM	70	NE	ARG	8	0.593	-18.092	14.458	1.00	0.00
ATOM	71	CZ	ARG	8	-0.477	-17.422	13.998	1.00	0.00
ATOM	72	NH1	ARG	8	-0.345	-16.541	13.003	1.00	0.00
ATOM	73	NH2	ARG	8	-1.681	-17.609	14.550	1.00	0.00
ATOM	74	C	ARG	8	6.623	-19.606	13.884	1.00	0.00
ATOM	75	O	ARG	8	7.163	-18.559	13.528	1.00	0.00
ATOM	76	N	GLN	9	7.092	-20.812	13.558	1.00	0.00
ATOM	77	CA	GLN	9	8.272	-21.000	12.734	1.00	0.00
ATOM	78	CB	GLN	9	8.822	-22.418	12.970	1.00	0.00
ATOM	79	CG	GLN	9	10.287	-22.592	12.542	1.00	0.00
ATOM	80	CD	GLN	9	10.500	-22.554	11.032	1.00	0.00
ATOM	81	OE1	GLN	9	11.216	-21.694	10.529	1.00	0.00
ATOM	82	NE2	GLN	9	9.902	-23.506	10.319	1.00	0.00
ATOM	83	C	GLN	9	7.798	-20.743	11.302	1.00	0.00
ATOM	84	O	GLN	9	7.178	-21.611	10.694	1.00	0.00
ATOM	85	N	ALA	10	8.053	-19.539	10.776	1.00	0.00
ATOM	86	CA	ALA	10	7.625	-19.137	9.441	1.00	0.00
ATOM	87	CB	ALA	10	8.067	-17.697	9.172	1.00	0.00
ATOM	88	C	ALA	10	8.151	-20.080	8.358	1.00	0.00
ATOM	89	O	ALA	10	9.109	-20.817	8.583	1.00	0.00
ATOM	90	N	TRP	11	7.522	-20.067	7.179	1.00	0.00
ATOM	91	CA	TRP	11	7.949	-20.922	6.082	1.00	0.00
ATOM	92	CB	TRP	11	6.817	-21.101	5.078	1.00	0.00
ATOM	93	CG	TRP	11	5.638	-21.908	5.533	1.00	0.00
ATOM	94	CD1	TRP	11	4.770	-21.581	6.516	1.00	0.00
ATOM	95	NE1	TRP	11	3.811	-22.565	6.651	1.00	0.00
ATOM	96	CE2	TRP	11	4.021	-23.586	5.745	1.00	0.00
ATOM	97	CZ2	TRP	11	3.348	-24.788	5.478	1.00	0.00
ATOM	98	CH2	TRP	11	3.833	-25.634	4.474	1.00	0.00
ATOM	99	CZ3	TRP	11	4.974	-25.278	3.739	1.00	0.00
ATOM	100	CE3	TRP	11	5.639	-24.068	4.010	1.00	0.00
ATOM	101	CD2	TRP	11	5.184	-23.193	5.020	1.00	0.00
ATOM	102	C	TRP	11	9.167	-20.307	5.397	1.00	0.00
ATOM	103	O	TRP	11	9.237	-19.091	5.222	1.00	0.00
ATOM	104	N	LEU	12	10.113	-21.162	5.012	1.00	0.00
ATOM	105	CA	LEU	12	11.349	-20.807	4.333	1.00	0.00
ATOM	106	CB	LEU	12	12.547	-21.029	5.277	1.00	0.00

887					888				
ATOM	107	CG	LEU	12	12.477	-20.243	6.597	1.00	0.00
ATOM	108	CD1	LEU	12	13.615	-20.702	7.516	1.00	0.00
ATOM	109	CD2	LEU	12	12.601	-18.732	6.363	1.00	0.00
ATOM	110	C	LEU	12	11.480	-21.686	3.088	1.00	0.00
ATOM	111	O	LEU	12	10.618	-22.523	2.817	1.00	0.00
ATOM	112	N	TRP	13	12.575	-21.505	2.337	1.00	0.00
ATOM	113	CA	TRP	13	12.872	-22.278	1.130	1.00	0.00
ATOM	114	CB	TRP	13	14.301	-22.092	0.606	1.00	0.00
ATOM	115	CG	TRP	13	15.054	-21.050	1.322	1.00	0.00
ATOM	116	CD1	TRP	13	15.020	-19.767	0.975	1.00	0.00
ATOM	117	NE1	TRP	13	15.804	-19.024	1.840	1.00	0.00
ATOM	118	CE2	TRP	13	16.373	-19.843	2.807	1.00	0.00
ATOM	119	CZ2	TRP	13	17.221	-19.620	3.906	1.00	0.00
ATOM	120	CH2	TRP	13	17.604	-20.712	4.709	1.00	0.00
ATOM	121	CZ3	TRP	13	17.144	-22.008	4.406	1.00	0.00
ATOM	122	CE3	TRP	13	16.304	-22.216	3.301	1.00	0.00
ATOM	123	CD2	TRP	13	15.902	-21.147	2.486	1.00	0.00
ATOM	124	C	TRP	13	12.745	-23.747	1.420	1.00	0.00
ATOM	125	O	TRP	13	12.215	-24.468	0.602	1.00	0.00
ATOM	126	N	GLU	14	13.253	-24.208	2.555	1.00	0.00
ATOM	127	CA	GLU	14	13.162	-25.629	2.850	1.00	0.00
ATOM	128	CB	GLU	14	13.812	-25.989	4.197	1.00	0.00
ATOM	129	CG	GLU	14	15.346	-25.908	4.208	1.00	0.00
ATOM	130	CD	GLU	14	15.991	-26.527	2.971	1.00	0.00
ATOM	131	OE1	GLU	14	16.162	-27.763	2.971	1.00	0.00
ATOM	132	OE2	GLU	14	16.259	-25.760	2.019	1.00	0.00
ATOM	133	C	GLU	14	11.719	-26.129	2.720	1.00	0.00
ATOM	134	O	GLU	14	11.458	-27.007	1.898	1.00	0.00
ATOM	135	N	GLU	15	10.777	-25.577	3.486	1.00	0.00
ATOM	136	CA	GLU	15	9.390	-26.005	3.408	1.00	0.00
ATOM	137	CB	GLU	15	8.580	-25.421	4.568	1.00	0.00
ATOM	138	CG	GLU	15	9.214	-25.702	5.937	1.00	0.00
ATOM	139	CD	GLU	15	9.978	-24.494	6.466	1.00	0.00
ATOM	140	OE1	GLU	15	10.713	-23.876	5.666	1.00	0.00
ATOM	141	OE2	GLU	15	9.774	-24.189	7.660	1.00	0.00
ATOM	142	C	GLU	15	8.749	-25.690	2.048	1.00	0.00
ATOM	143	O	GLU	15	8.093	-26.553	1.475	1.00	0.00
ATOM	144	N	ASP	16	8.912	-24.473	1.518	1.00	0.00
ATOM	145	CA	ASP	16	8.311	-24.079	0.244	1.00	0.00
ATOM	146	CB	ASP	16	8.541	-22.582	0.001	1.00	0.00
ATOM	147	CG	ASP	16	7.816	-21.711	1.017	1.00	0.00
ATOM	148	OD1	ASP	16	6.629	-21.988	1.292	1.00	0.00
ATOM	149	OD2	ASP	16	8.435	-20.733	1.488	1.00	0.00
ATOM	150	C	ASP	16	8.828	-24.895	-0.946	1.00	0.00
ATOM	151	O	ASP	16	8.047	-25.363	-1.770	1.00	0.00
ATOM	152	N	LYS	17	10.147	-25.058	-1.041	1.00	0.00
ATOM	153	CA	LYS	17	10.840	-25.796	-2.088	1.00	0.00
ATOM	154	CB	LYS	17	12.361	-25.591	-1.918	1.00	0.00
ATOM	155	CG	LYS	17	13.196	-26.218	-3.039	1.00	0.00
ATOM	156	CD	LYS	17	14.699	-25.947	-2.864	1.00	0.00

(446)

特開2003-135087

889

890

ATOM	157	CE	LYS	17	15.292	-26.470	-1.541	1.00	0.00
ATOM	158	NZ	LYS	17	15.173	-25.501	-0.431	1.00	0.00
ATOM	159	C	LYS	17	10.407	-27.267	-2.006	1.00	0.00
ATOM	160	O	LYS	17	10.061	-27.877	-3.019	1.00	0.00
ATOM	161	N	ASN	18	10.406	-27.830	-0.789	1.00	0.00
ATOM	162	CA	ASN	18	9.987	-29.202	-0.530	1.00	0.00
ATOM	163	CB	ASN	18	10.207	-29.500	0.956	1.00	0.00
ATOM	164	CG	ASN	18	9.867	-30.926	1.361	1.00	0.00
ATOM	165	OD1	ASN	18	10.031	-31.851	0.572	1.00	0.00
ATOM	166	ND2	ASN	18	9.429	-31.097	2.609	1.00	0.00
ATOM	167	C	ASN	18	8.523	-29.392	-0.946	1.00	0.00
ATOM	168	O	ASN	18	8.178	-30.370	-1.605	1.00	0.00
ATOM	169	N	LEU	19	7.659	-28.439	-0.579	1.00	0.00
ATOM	170	CA	LEU	19	6.246	-28.459	-0.923	1.00	0.00
ATOM	171	CB	LEU	19	5.520	-27.309	-0.210	1.00	0.00
ATOM	172	CG	LEU	19	4.035	-27.185	-0.579	1.00	0.00
ATOM	173	CD1	LEU	19	3.258	-28.483	-0.347	1.00	0.00
ATOM	174	CD2	LEU	19	3.410	-26.050	0.241	1.00	0.00
ATOM	175	C	LEU	19	6.079	-28.410	-2.442	1.00	0.00
ATOM	176	O	LEU	19	5.287	-29.170	-2.990	1.00	0.00
ATOM	177	N	ARG	20	6.831	-27.541	-3.129	1.00	0.00
ATOM	178	CA	ARG	20	6.781	-27.428	-4.580	1.00	0.00
ATOM	179	CB	ARG	20	7.732	-26.323	-5.061	1.00	0.00
ATOM	180	CG	ARG	20	7.566	-26.050	-6.562	1.00	0.00
ATOM	181	CD	ARG	20	8.396	-24.833	-6.983	1.00	0.00
ATOM	182	NE	ARG	20	8.108	-24.449	-8.372	1.00	0.00
ATOM	183	CZ	ARG	20	8.748	-23.480	-9.050	1.00	0.00
ATOM	184	NH1	ARG	20	8.383	-23.191	-10.307	1.00	0.00
ATOM	185	NH2	ARG	20	9.749	-22.800	-8.476	1.00	0.00
ATOM	186	C	ARG	20	7.090	-28.792	-5.204	1.00	0.00
ATOM	187	O	ARG	20	6.366	-29.239	-6.093	1.00	0.00
ATOM	188	N	SER	21	8.144	-29.465	-4.719	1.00	0.00
ATOM	189	CA	SER	21	8.514	-30.799	-5.183	1.00	0.00
ATOM	190	CB	SER	21	9.747	-31.291	-4.413	1.00	0.00
ATOM	191	OG	SER	21	10.189	-32.543	-4.899	1.00	0.00
ATOM	192	C	SER	21	7.316	-31.741	-4.997	1.00	0.00
ATOM	193	O	SER	21	6.955	-32.483	-5.910	1.00	0.00
ATOM	194	N	GLY	22	6.696	-31.684	-3.812	1.00	0.00
ATOM	195	CA	GLY	22	5.530	-32.475	-3.458	1.00	0.00
ATOM	196	C	GLY	22	4.394	-32.293	-4.464	1.00	0.00
ATOM	197	O	GLY	22	3.939	-33.270	-5.051	1.00	0.00
ATOM	198	N	VAL	23	3.937	-31.052	-4.666	1.00	0.00
ATOM	199	CA	VAL	23	2.857	-30.737	-5.594	1.00	0.00
ATOM	200	CB	VAL	23	2.509	-29.237	-5.538	1.00	0.00
ATOM	201	CG1	VAL	23	1.449	-28.880	-6.591	1.00	0.00
ATOM	202	CG2	VAL	23	1.950	-28.869	-4.156	1.00	0.00
ATOM	203	C	VAL	23	3.209	-31.204	-7.008	1.00	0.00
ATOM	204	O	VAL	23	2.365	-31.777	-7.690	1.00	0.00
ATOM	205	N	ARG	24	4.446	-30.976	-7.461	1.00	0.00
ATOM	206	CA	ARG	24	4.861	-31.402	-8.791	1.00	0.00

891				892					
ATOM	207	CB	ARG	24	6.280	-30.908	-9.095	1.00	0.00
ATOM	208	CG	ARG	24	6.277	-29.403	-9.397	1.00	0.00
ATOM	209	CD	ARG	24	7.699	-28.871	-9.619	1.00	0.00
ATOM	210	NE	ARG	24	8.402	-29.576	-10.703	1.00	0.00
ATOM	211	CZ	ARG	24	8.181	-29.418	-12.020	1.00	0.00
ATOM	212	NH1	ARG	24	7.250	-28.561	-12.459	1.00	0.00
ATOM	213	NH2	ARG	24	8.898	-30.127	-12.901	1.00	0.00
ATOM	214	C	ARG	24	4.764	-32.923	-8.957	1.00	0.00
ATOM	215	O	ARG	24	4.367	-33.393	-10.020	1.00	0.00
ATOM	216	N	LYS	25	5.130	-33.694	-7.927	1.00	0.00
ATOM	217	CA	LYS	25	5.097	-35.149	-7.989	1.00	0.00
ATOM	218	CB	LYS	25	6.032	-35.741	-6.926	1.00	0.00
ATOM	219	CG	LYS	25	7.502	-35.546	-7.302	1.00	0.00
ATOM	220	CD	LYS	25	8.387	-36.275	-6.285	1.00	0.00
ATOM	221	CE	LYS	25	9.872	-36.162	-6.645	1.00	0.00
ATOM	222	NZ	LYS	25	10.358	-34.774	-6.540	1.00	0.00
ATOM	223	C	LYS	25	3.702	-35.751	-7.812	1.00	0.00
ATOM	224	O	LYS	25	3.286	-36.580	-8.618	1.00	0.00
ATOM	225	N	TYR	26	3.012	-35.382	-6.729	1.00	0.00
ATOM	226	CA	TYR	26	1.724	-35.952	-6.342	1.00	0.00
ATOM	227	CB	TYR	26	1.809	-36.300	-4.846	1.00	0.00
ATOM	228	CG	TYR	26	3.140	-36.951	-4.493	1.00	0.00
ATOM	229	CD1	TYR	26	3.459	-38.221	-5.008	1.00	0.00
ATOM	230	CE1	TYR	26	4.699	-38.813	-4.710	1.00	0.00
ATOM	231	CZ	TYR	26	5.624	-38.138	-3.895	1.00	0.00
ATOM	232	OH	TYR	26	6.829	-38.708	-3.608	1.00	0.00
ATOM	233	CE2	TYR	26	5.308	-36.872	-3.377	1.00	0.00
ATOM	234	CD2	TYR	26	4.069	-36.280	-3.676	1.00	0.00
ATOM	235	C	TYR	26	0.502	-35.099	-6.690	1.00	0.00
ATOM	236	O	TYR	26	-0.614	-35.494	-6.360	1.00	0.00
ATOM	237	N	GLY	27	0.689	-33.954	-7.358	1.00	0.00
ATOM	238	CA	GLY	27	-0.399	-33.070	-7.755	1.00	0.00
ATOM	239	C	GLY	27	-0.922	-32.246	-6.580	1.00	0.00
ATOM	240	O	GLY	27	-0.599	-32.514	-5.423	1.00	0.00
ATOM	241	N	GLU	28	-1.749	-31.235	-6.877	1.00	0.00
ATOM	242	CA	GLU	28	-2.351	-30.396	-5.851	1.00	0.00
ATOM	243	CB	GLU	28	-2.786	-29.049	-6.454	1.00	0.00
ATOM	244	CG	GLU	28	-3.011	-28.001	-5.355	1.00	0.00
ATOM	245	CD	GLU	28	-3.320	-26.620	-5.915	1.00	0.00
ATOM	246	OE1	GLU	28	-2.419	-26.039	-6.556	1.00	0.00
ATOM	247	OE2	GLU	28	-4.439	-26.118	-5.674	1.00	0.00
ATOM	248	C	GLU	28	-3.514	-31.178	-5.231	1.00	0.00
ATOM	249	O	GLU	28	-4.018	-32.123	-5.837	1.00	0.00
ATOM	250	N	GLY	29	-3.938	-30.808	-4.020	1.00	0.00
ATOM	251	CA	GLY	29	-5.027	-31.489	-3.333	1.00	0.00
ATOM	252	C	GLY	29	-4.659	-32.924	-2.958	1.00	0.00
ATOM	253	O	GLY	29	-5.506	-33.813	-2.982	1.00	0.00
ATOM	254	N	ASN	30	-3.387	-33.136	-2.605	1.00	0.00
ATOM	255	CA	ASN	30	-2.831	-34.419	-2.193	1.00	0.00
ATOM	256	CB	ASN	30	-2.154	-35.110	-3.389	1.00	0.00

(448)

特開2003-135087

893

894

ATOM	257	CG	ASN	30	-3.157	-35.681	-4.389	1.00	0.00
ATOM	258	OD1	ASN	30	-3.500	-36.859	-4.309	1.00	0.00
ATOM	259	ND2	ASN	30	-3.634	-34.876	-5.337	1.00	0.00
ATOM	260	C	ASN	30	-1.846	-34.142	-1.055	1.00	0.00
ATOM	261	O	ASN	30	-0.743	-34.685	-1.020	1.00	0.00
ATOM	262	N	TRP	31	-2.253	-33.274	-0.123	1.00	0.00
ATOM	263	CA	TRP	31	-1.449	-32.858	1.019	1.00	0.00
ATOM	264	CB	TRP	31	-2.132	-31.716	1.783	1.00	0.00
ATOM	265	CG	TRP	31	-2.910	-30.781	0.911	1.00	0.00
ATOM	266	CD1	TRP	31	-4.257	-30.719	0.829	1.00	0.00
ATOM	267	NE1	TRP	31	-4.625	-29.760	-0.092	1.00	0.00
ATOM	268	CE2	TRP	31	-3.521	-29.154	-0.647	1.00	0.00
ATOM	269	CZ2	TRP	31	-3.373	-28.147	-1.609	1.00	0.00
ATOM	270	CH2	TRP	31	-2.081	-27.741	-1.970	1.00	0.00
ATOM	271	CZ3	TRP	31	-0.958	-28.341	-1.379	1.00	0.00
ATOM	272	CE3	TRP	31	-1.119	-29.355	-0.416	1.00	0.00
ATOM	273	CD2	TRP	31	-2.406	-29.785	-0.025	1.00	0.00
ATOM	274	C	TRP	31	-1.077	-34.045	1.907	1.00	0.00
ATOM	275	O	TRP	31	-0.019	-34.027	2.530	1.00	0.00
ATOM	276	N	SER	32	-1.922	-35.082	1.949	1.00	0.00
ATOM	277	CA	SER	32	-1.675	-36.294	2.717	1.00	0.00
ATOM	278	CB	SER	32	-2.894	-37.222	2.631	1.00	0.00
ATOM	279	OG	SER	32	-3.301	-37.417	1.285	1.00	0.00
ATOM	280	C	SER	32	-0.433	-36.989	2.161	1.00	0.00
ATOM	281	O	SER	32	0.525	-37.247	2.886	1.00	0.00
ATOM	282	N	LYS	33	-0.465	-37.277	0.857	1.00	0.00
ATOM	283	CA	LYS	33	0.618	-37.926	0.138	1.00	0.00
ATOM	284	CB	LYS	33	0.241	-38.124	-1.337	1.00	0.00
ATOM	285	CG	LYS	33	-1.070	-38.906	-1.483	1.00	0.00
ATOM	286	CD	LYS	33	-1.334	-39.246	-2.955	1.00	0.00
ATOM	287	CE	LYS	33	-2.672	-39.976	-3.142	1.00	0.00
ATOM	288	NZ	LYS	33	-3.829	-39.135	-2.774	1.00	0.00
ATOM	289	C	LYS	33	1.886	-37.089	0.289	1.00	0.00
ATOM	290	O	LYS	33	2.928	-37.612	0.673	1.00	0.00
ATOM	291	N	ILE	34	1.788	-35.786	0.004	1.00	0.00
ATOM	292	CA	ILE	34	2.903	-34.857	0.121	1.00	0.00
ATOM	293	CB	ILE	34	2.439	-33.433	-0.242	1.00	0.00
ATOM	294	CG2	ILE	34	3.481	-32.385	0.166	1.00	0.00
ATOM	295	CG1	ILE	34	2.168	-33.363	-1.756	1.00	0.00
ATOM	296	CD1	ILE	34	1.444	-32.089	-2.194	1.00	0.00
ATOM	297	C	ILE	34	3.521	-34.952	1.518	1.00	0.00
ATOM	298	O	ILE	34	4.728	-35.135	1.628	1.00	0.00
ATOM	299	N	LEU	35	2.710	-34.844	2.576	1.00	0.00
ATOM	300	CA	LEU	35	3.160	-34.924	3.961	1.00	0.00
ATOM	301	CB	LEU	35	1.965	-34.653	4.889	1.00	0.00
ATOM	302	CG	LEU	35	2.280	-34.715	6.392	1.00	0.00
ATOM	303	CD1	LEU	35	3.363	-33.714	6.814	1.00	0.00
ATOM	304	CD2	LEU	35	0.993	-34.420	7.172	1.00	0.00
ATOM	305	C	LEU	35	3.815	-36.277	4.271	1.00	0.00
ATOM	306	O	LEU	35	4.799	-36.332	5.008	1.00	0.00

(449)

特開2003-135087

895

896

ATOM	307	N	LEU	36	3.270	-37.368	3.722	1.00	0.00
ATOM	308	CA	LEU	36	3.776	-38.716	3.944	1.00	0.00
ATOM	309	CB	LEU	36	2.750	-39.725	3.401	1.00	0.00
ATOM	310	CG	LEU	36	3.065	-41.201	3.710	1.00	0.00
ATOM	311	CD1	LEU	36	1.755	-41.999	3.689	1.00	0.00
ATOM	312	CD2	LEU	36	4.023	-41.835	2.690	1.00	0.00
ATOM	313	C	LEU	36	5.161	-38.880	3.320	1.00	0.00
ATOM	314	O	LEU	36	6.112	-39.256	4.004	1.00	0.00
ATOM	315	N	HIS	37	5.268	-38.612	2.016	1.00	0.00
ATOM	316	CA	HIS	37	6.506	-38.742	1.262	1.00	0.00
ATOM	317	CB	HIS	37	6.208	-38.567	-0.231	1.00	0.00
ATOM	318	CG	HIS	37	5.242	-39.590	-0.774	1.00	0.00
ATOM	319	ND1	HIS	37	5.483	-40.954	-0.709	1.00	0.00
ATOM	320	CE1	HIS	37	4.434	-41.572	-1.277	1.00	0.00
ATOM	321	NE2	HIS	37	3.505	-40.721	-1.718	1.00	0.00
ATOM	322	CD2	HIS	37	4.022	-39.470	-1.397	1.00	0.00
ATOM	323	C	HIS	37	7.566	-37.743	1.726	1.00	0.00
ATOM	324	O	HIS	37	8.729	-38.106	1.885	1.00	0.00
ATOM	325	N	TYR	38	7.159	-36.487	1.927	1.00	0.00
ATOM	326	CA	TYR	38	8.013	-35.392	2.351	1.00	0.00
ATOM	327	CB	TYR	38	7.962	-34.271	1.305	1.00	0.00
ATOM	328	CG	TYR	38	8.635	-34.529	-0.030	1.00	0.00
ATOM	329	CD1	TYR	38	7.934	-34.290	-1.227	1.00	0.00
ATOM	330	CE1	TYR	38	8.561	-34.507	-2.467	1.00	0.00
ATOM	331	CZ	TYR	38	9.889	-34.963	-2.511	1.00	0.00
ATOM	332	OH	TYR	38	10.508	-35.168	-3.710	1.00	0.00
ATOM	333	CE2	TYR	38	10.590	-35.203	-1.318	1.00	0.00
ATOM	334	CD2	TYR	38	9.965	-34.985	-0.079	1.00	0.00
ATOM	335	C	TYR	38	7.535	-34.830	3.688	1.00	0.00
ATOM	336	O	TYR	38	6.475	-34.216	3.757	1.00	0.00
ATOM	337	N	LYS	39	8.330	-35.004	4.748	1.00	0.00
ATOM	338	CA	LYS	39	8.000	-34.452	6.055	1.00	0.00
ATOM	339	CB	LYS	39	8.741	-35.215	7.164	1.00	0.00
ATOM	340	CG	LYS	39	10.272	-35.136	7.051	1.00	0.00
ATOM	341	CD	LYS	39	10.970	-35.770	8.264	1.00	0.00
ATOM	342	CE	LYS	39	10.697	-37.276	8.377	1.00	0.00
ATOM	343	NZ	LYS	39	11.483	-37.894	9.461	1.00	0.00
ATOM	344	C	LYS	39	8.308	-32.949	6.060	1.00	0.00
ATOM	345	O	LYS	39	9.001	-32.455	5.170	1.00	0.00
ATOM	346	N	PHE	40	7.795	-32.225	7.062	1.00	0.00
ATOM	347	CA	PHE	40	7.992	-30.787	7.221	1.00	0.00
ATOM	348	CB	PHE	40	6.774	-30.023	6.686	1.00	0.00
ATOM	349	CG	PHE	40	6.507	-30.173	5.201	1.00	0.00
ATOM	350	CD1	PHE	40	5.760	-31.263	4.717	1.00	0.00
ATOM	351	CE1	PHE	40	5.512	-31.393	3.341	1.00	0.00
ATOM	352	CZ	PHE	40	6.005	-30.435	2.439	1.00	0.00
ATOM	353	CE2	PHE	40	6.749	-29.348	2.922	1.00	0.00
ATOM	354	CD2	PHE	40	7.002	-29.216	4.297	1.00	0.00
ATOM	355	C	PHE	40	8.247	-30.454	8.694	1.00	0.00
ATOM	356	O	PHE	40	8.167	-31.330	9.553	1.00	0.00

(450)

特開2003-135087

897

898

ATOM	357	N	ASN	41	8.563	-29.183	8.977	1.00	0.00
ATOM	358	CA	ASN	41	8.873	-28.687	10.313	1.00	0.00
ATOM	359	CB	ASN	41	9.298	-27.213	10.228	1.00	0.00
ATOM	360	CG	ASN	41	9.793	-26.700	11.578	1.00	0.00
ATOM	361	OD1	ASN	41	10.937	-26.936	11.952	1.00	0.00
ATOM	362	ND2	ASN	41	8.942	-25.991	12.317	1.00	0.00
ATOM	363	C	ASN	41	7.729	-28.891	11.316	1.00	0.00
ATOM	364	O	ASN	41	7.882	-29.649	12.271	1.00	0.00
ATOM	365	N	ASN	42	6.595	-28.208	11.115	1.00	0.00
ATOM	366	CA	ASN	42	5.428	-28.280	11.998	1.00	0.00
ATOM	367	CB	ASN	42	5.553	-27.209	13.098	1.00	0.00
ATOM	368	CG	ASN	42	5.435	-25.778	12.555	1.00	0.00
ATOM	369	OD1	ASN	42	6.210	-25.376	11.690	1.00	0.00
ATOM	370	ND2	ASN	42	4.471	-25.007	13.059	1.00	0.00
ATOM	371	C	ASN	42	4.136	-28.086	11.201	1.00	0.00
ATOM	372	O	ASN	42	3.177	-27.502	11.700	1.00	0.00
ATOM	373	N	ARG	43	4.123	-28.555	9.951	1.00	0.00
ATOM	374	CA	ARG	43	3.010	-28.403	9.032	1.00	0.00
ATOM	375	CB	ARG	43	3.558	-28.090	7.631	1.00	0.00
ATOM	376	CG	ARG	43	4.790	-27.168	7.625	1.00	0.00
ATOM	377	CD	ARG	43	4.638	-25.825	8.352	1.00	0.00
ATOM	378	NE	ARG	43	5.832	-25.004	8.109	1.00	0.00
ATOM	379	CZ	ARG	43	6.170	-23.891	8.777	1.00	0.00
ATOM	380	NH1	ARG	43	7.393	-23.376	8.636	1.00	0.00
ATOM	381	NH2	ARG	43	5.316	-23.278	9.600	1.00	0.00
ATOM	382	C	ARG	43	2.112	-29.643	9.031	1.00	0.00
ATOM	383	O	ARG	43	2.530	-30.726	9.439	1.00	0.00
ATOM	384	N	THR	44	0.874	-29.466	8.565	1.00	0.00
ATOM	385	CA	THR	44	-0.168	-30.476	8.453	1.00	0.00
ATOM	386	CB	THR	44	-1.243	-30.217	9.521	1.00	0.00
ATOM	387	CG2	THR	44	-0.657	-30.197	10.937	1.00	0.00
ATOM	388	OG1	THR	44	-1.896	-28.986	9.250	1.00	0.00
ATOM	389	C	THR	44	-0.800	-30.329	7.072	1.00	0.00
ATOM	390	O	THR	44	-0.434	-29.420	6.330	1.00	0.00
ATOM	391	N	SER	45	-1.772	-31.182	6.730	1.00	0.00
ATOM	392	CA	SER	45	-2.492	-31.089	5.466	1.00	0.00
ATOM	393	CB	SER	45	-3.592	-32.157	5.430	1.00	0.00
ATOM	394	OG	SER	45	-4.295	-32.175	6.657	1.00	0.00
ATOM	395	C	SER	45	-3.078	-29.680	5.324	1.00	0.00
ATOM	396	O	SER	45	-3.000	-29.067	4.261	1.00	0.00
ATOM	397	N	VAL	46	-3.645	-29.169	6.423	1.00	0.00
ATOM	398	CA	VAL	46	-4.233	-27.845	6.514	1.00	0.00
ATOM	399	CB	VAL	46	-4.918	-27.667	7.881	1.00	0.00
ATOM	400	CG1	VAL	46	-5.513	-26.264	8.021	1.00	0.00
ATOM	401	CG2	VAL	46	-6.048	-28.683	8.082	1.00	0.00
ATOM	402	C	VAL	46	-3.171	-26.766	6.269	1.00	0.00
ATOM	403	O	VAL	46	-3.396	-25.880	5.445	1.00	0.00
ATOM	404	N	MET	47	-2.028	-26.820	6.973	1.00	0.00
ATOM	405	CA	MET	47	-0.994	-25.801	6.786	1.00	0.00
ATOM	406	CB	MET	47	0.154	-25.912	7.798	1.00	0.00

(451)

特開2003-135087

899

900

ATOM	407	CG	MET	47	-0.277	-26.079	9.258	1.00	0.00
ATOM	408	SD	MET	47	0.833	-25.304	10.457	1.00	0.00
ATOM	409	CE	MET	47	0.164	-26.005	11.983	1.00	0.00
ATOM	410	C	MET	47	-0.437	-25.823	5.358	1.00	0.00
ATOM	411	O	MET	47	-0.267	-24.769	4.754	1.00	0.00
ATOM	412	N	LEU	48	-0.160	-27.018	4.821	1.00	0.00
ATOM	413	CA	LEU	48	0.359	-27.222	3.473	1.00	0.00
ATOM	414	CB	LEU	48	0.539	-28.728	3.206	1.00	0.00
ATOM	415	CG	LEU	48	1.700	-29.332	4.015	1.00	0.00
ATOM	416	CD1	LEU	48	1.533	-30.845	4.178	1.00	0.00
ATOM	417	CD2	LEU	48	3.041	-29.099	3.319	1.00	0.00
ATOM	418	C	LEU	48	-0.596	-26.591	2.463	1.00	0.00
ATOM	419	O	LEU	48	-0.182	-25.779	1.635	1.00	0.00
ATOM	420	N	LYS	49	-1.879	-26.957	2.560	1.00	0.00
ATOM	421	CA	LYS	49	-2.934	-26.436	1.713	1.00	0.00
ATOM	422	CB	LYS	49	-4.285	-26.975	2.212	1.00	0.00
ATOM	423	CG	LYS	49	-5.496	-26.380	1.474	1.00	0.00
ATOM	424	CD	LYS	49	-6.758	-26.417	2.344	1.00	0.00
ATOM	425	CE	LYS	49	-6.759	-25.392	3.493	1.00	0.00
ATOM	426	NZ	LYS	49	-8.086	-25.290	4.133	1.00	0.00
ATOM	427	C	LYS	49	-2.929	-24.910	1.755	1.00	0.00
ATOM	428	O	LYS	49	-2.735	-24.260	0.728	1.00	0.00
ATOM	429	N	ASP	50	-3.172	-24.346	2.942	1.00	0.00
ATOM	430	CA	ASP	50	-3.260	-22.910	3.118	1.00	0.00
ATOM	431	CB	ASP	50	-3.583	-22.562	4.567	1.00	0.00
ATOM	432	CG	ASP	50	-4.001	-21.104	4.641	1.00	0.00
ATOM	433	OD1	ASP	50	-3.238	-20.318	5.242	1.00	0.00
ATOM	434	OD2	ASP	50	-5.085	-20.804	4.095	1.00	0.00
ATOM	435	C	ASP	50	-2.029	-22.171	2.602	1.00	0.00
ATOM	436	O	ASP	50	-2.171	-21.190	1.877	1.00	0.00
ATOM	437	N	ARG	51	-0.827	-22.644	2.948	1.00	0.00
ATOM	438	CA	ARG	51	0.414	-22.038	2.486	1.00	0.00
ATOM	439	CB	ARG	51	1.632	-22.821	2.993	1.00	0.00
ATOM	440	CG	ARG	51	2.958	-22.298	2.408	1.00	0.00
ATOM	441	CD	ARG	51	3.305	-20.885	2.890	1.00	0.00
ATOM	442	NE	ARG	51	4.663	-20.492	2.477	1.00	0.00
ATOM	443	CZ	ARG	51	5.155	-19.242	2.516	1.00	0.00
ATOM	444	NH1	ARG	51	4.399	-18.224	2.939	1.00	0.00
ATOM	445	NH2	ARG	51	6.416	-18.996	2.145	1.00	0.00
ATOM	446	C	ARG	51	0.425	-21.989	0.964	1.00	0.00
ATOM	447	O	ARG	51	0.777	-20.962	0.388	1.00	0.00
ATOM	448	N	TRP	52	0.047	-23.090	0.305	1.00	0.00
ATOM	449	CA	TRP	52	0.031	-23.134	-1.139	1.00	0.00
ATOM	450	CB	TRP	52	-0.258	-24.555	-1.607	1.00	0.00
ATOM	451	CG	TRP	52	0.072	-24.798	-3.040	1.00	0.00
ATOM	452	CD1	TRP	52	-0.835	-24.971	-4.019	1.00	0.00
ATOM	453	NE1	TRP	52	-0.197	-25.184	-5.222	1.00	0.00
ATOM	454	CE2	TRP	52	1.176	-25.150	-5.071	1.00	0.00
ATOM	455	CZ2	TRP	52	2.247	-25.304	-5.963	1.00	0.00
ATOM	456	CH2	TRP	52	3.561	-25.214	-5.480	1.00	0.00

(452)

特開2003-135087

901

902

ATOM	457	CZ3	TRP	52	3.793	-24.969	-4.115	1.00	0.00
ATOM	458	CE3	TRP	52	2.712	-24.815	-3.229	1.00	0.00
ATOM	459	CD2	TRP	52	1.377	-24.903	-3.681	1.00	0.00
ATOM	460	C	TRP	52	-0.960	-22.111	-1.690	1.00	0.00
ATOM	461	O	TRP	52	-0.622	-21.395	-2.629	1.00	0.00
ATOM	462	N	ARG	53	-2.166	-22.010	-1.110	1.00	0.00
ATOM	463	CA	ARG	53	-3.148	-21.021	-1.551	1.00	0.00
ATOM	464	CB	ARG	53	-4.439	-21.081	-0.717	1.00	0.00
ATOM	465	CG	ARG	53	-5.177	-22.419	-0.851	1.00	0.00
ATOM	466	CD	ARG	53	-6.586	-22.362	-0.246	1.00	0.00
ATOM	467	NE	ARG	53	-6.589	-21.901	1.152	1.00	0.00
ATOM	468	CZ	ARG	53	-7.699	-21.608	1.850	1.00	0.00
ATOM	469	NH1	ARG	53	-7.597	-21.106	3.086	1.00	0.00
ATOM	470	NH2	ARG	53	-8.909	-21.811	1.315	1.00	0.00
ATOM	471	C	ARG	53	-2.526	-19.625	-1.462	1.00	0.00
ATOM	472	O	ARG	53	-2.533	-18.878	-2.440	1.00	0.00
ATOM	473	N	THR	54	-1.976	-19.288	-0.288	1.00	0.00
ATOM	474	CA	THR	54	-1.322	-18.019	-0.009	1.00	0.00
ATOM	475	CB	THR	54	-0.723	-18.050	1.405	1.00	0.00
ATOM	476	CG2	THR	54	-0.007	-16.748	1.767	1.00	0.00
ATOM	477	OG1	THR	54	-1.761	-18.263	2.339	1.00	0.00
ATOM	478	C	THR	54	-0.261	-17.712	-1.064	1.00	0.00
ATOM	479	O	THR	54	-0.245	-16.607	-1.609	1.00	0.00
ATOM	480	N	MET	55	0.608	-18.692	-1.338	1.00	0.00
ATOM	481	CA	MET	55	1.689	-18.602	-2.303	1.00	0.00
ATOM	482	CB	MET	55	2.485	-19.915	-2.287	1.00	0.00
ATOM	483	CG	MET	55	3.756	-19.840	-3.142	1.00	0.00
ATOM	484	SD	MET	55	4.263	-21.389	-3.940	1.00	0.00
ATOM	485	CE	MET	55	2.901	-21.595	-5.117	1.00	0.00
ATOM	486	C	MET	55	1.137	-18.288	-3.696	1.00	0.00
ATOM	487	O	MET	55	1.561	-17.309	-4.308	1.00	0.00
ATOM	488	N	LYS	56	0.203	-19.110	-4.194	1.00	0.00
ATOM	489	CA	LYS	56	-0.407	-18.940	-5.507	1.00	0.00
ATOM	490	CB	LYS	56	-1.511	-19.979	-5.768	1.00	0.00
ATOM	491	CG	LYS	56	-0.937	-21.392	-5.947	1.00	0.00
ATOM	492	CD	LYS	56	-1.851	-22.310	-6.770	1.00	0.00
ATOM	493	CE	LYS	56	-3.177	-22.679	-6.104	1.00	0.00
ATOM	494	NZ	LYS	56	-3.857	-23.730	-6.886	1.00	0.00
ATOM	495	C	LYS	56	-0.913	-17.514	-5.743	1.00	0.00
ATOM	496	O	LYS	56	-0.798	-17.030	-6.864	1.00	0.00
ATOM	497	N	LYS	57	-1.451	-16.832	-4.721	1.00	0.00
ATOM	498	CA	LYS	57	-1.928	-15.459	-4.881	1.00	0.00
ATOM	499	CB	LYS	57	-2.331	-14.841	-3.535	1.00	0.00
ATOM	500	CG	LYS	57	-3.483	-15.540	-2.802	1.00	0.00
ATOM	501	CD	LYS	57	-4.088	-14.639	-1.709	1.00	0.00
ATOM	502	CE	LYS	57	-3.353	-14.622	-0.357	1.00	0.00
ATOM	503	NZ	LYS	57	-1.908	-14.339	-0.457	1.00	0.00
ATOM	504	C	LYS	57	-0.853	-14.549	-5.486	1.00	0.00
ATOM	505	O	LYS	57	-1.139	-13.765	-6.389	1.00	0.00
ATOM	506	N	LEU	58	0.375	-14.637	-4.960	1.00	0.00

(453)

特開2003-135087

903					904				
ATOM	507	CA	LEU	58	1.501	-13.811	-5.369	1.00	0.00
ATOM	508	CB	LEU	58	2.439	-13.592	-4.167	1.00	0.00
ATOM	509	CG	LEU	58	1.972	-12.512	-3.174	1.00	0.00
ATOM	510	CD1	LEU	58	0.645	-12.848	-2.486	1.00	0.00
ATOM	511	CD2	LEU	58	3.050	-12.324	-2.100	1.00	0.00
ATOM	512	C	LEU	58	2.289	-14.427	-6.525	1.00	0.00
ATOM	513	O	LEU	58	2.569	-13.751	-7.513	1.00	0.00
ATOM	514	N	LYS	59	2.683	-15.697	-6.388	1.00	0.00
ATOM	515	CA	LYS	59	3.505	-16.395	-7.371	1.00	0.00
ATOM	516	CB	LYS	59	4.222	-17.583	-6.708	1.00	0.00
ATOM	517	CG	LYS	59	5.746	-17.398	-6.673	1.00	0.00
ATOM	518	CD	LYS	59	6.368	-17.411	-8.079	1.00	0.00
ATOM	519	CE	LYS	59	7.897	-17.303	-8.034	1.00	0.00
ATOM	520	NZ	LYS	59	8.348	-15.997	-7.514	1.00	0.00
ATOM	521	C	LYS	59	2.768	-16.810	-8.649	1.00	0.00
ATOM	522	O	LYS	59	3.419	-17.023	-9.670	1.00	0.00
ATOM	523	N	LEU	60	1.437	-16.931	-8.608	1.00	0.00
ATOM	524	CA	LEU	60	0.600	-17.305	-9.747	1.00	0.00
ATOM	525	CB	LEU	60	0.653	-16.235	-10.854	1.00	0.00
ATOM	526	CG	LEU	60	0.418	-14.794	-10.368	1.00	0.00
ATOM	527	CD1	LEU	60	0.553	-13.834	-11.556	1.00	0.00
ATOM	528	CD2	LEU	60	-0.964	-14.619	-9.729	1.00	0.00
ATOM	529	C	LEU	60	0.896	-18.707	-10.299	1.00	0.00
ATOM	530	O	LEU	60	0.590	-18.988	-11.459	1.00	0.00
ATOM	531	N	ILE	61	1.464	-19.607	-9.482	1.00	0.00
ATOM	532	CA	ILE	61	1.746	-20.977	-9.895	1.00	0.00
ATOM	533	CB	ILE	61	2.890	-21.583	-9.067	1.00	0.00
ATOM	534	CG2	ILE	61	3.115	-23.072	-9.387	1.00	0.00
ATOM	535	CG1	ILE	61	4.165	-20.788	-9.392	1.00	0.00
ATOM	536	CD1	ILE	61	5.370	-21.321	-8.626	1.00	0.00
ATOM	537	C	ILE	61	0.429	-21.737	-9.787	1.00	0.00
ATOM	538	O	ILE	61	0.167	-22.438	-8.815	1.00	0.00
ATOM	539	N	SER	62	-0.396	-21.549	-10.816	1.00	0.00
ATOM	540	CA	SER	62	-1.734	-22.103	-10.984	1.00	0.00
ATOM	541	CB	SER	62	-2.175	-21.929	-12.441	1.00	0.00
ATOM	542	OG	SER	62	-2.200	-20.555	-12.780	1.00	0.00
ATOM	543	C	SER	62	-1.834	-23.563	-10.536	1.00	0.00
ATOM	544	O	SER	62	-2.697	-23.892	-9.723	1.00	0.00
ATOM	545	N	SER	63	-0.939	-24.410	-11.063	1.00	0.00
ATOM	546	CA	SER	63	-0.839	-25.840	-10.776	1.00	0.00
ATOM	547	CB	SER	63	-0.768	-26.103	-9.265	1.00	0.00
ATOM	548	OG	SER	63	0.168	-25.250	-8.640	1.00	0.00
ATOM	549	C	SER	63	-1.966	-26.640	-11.438	1.00	0.00
ATOM	550	O	SER	63	-2.784	-26.089	-12.174	1.00	0.00
ATOM	551	N	ASP	64	-1.987	-27.951	-11.171	1.00	0.00
ATOM	552	CA	ASP	64	-2.964	-28.895	-11.694	1.00	0.00
ATOM	553	CB	ASP	64	-2.480	-30.312	-11.349	1.00	0.00
ATOM	554	CG	ASP	64	-3.339	-31.412	-11.965	1.00	0.00
ATOM	555	OD1	ASP	64	-3.405	-32.488	-11.334	1.00	0.00
ATOM	556	OD2	ASP	64	-3.901	-31.158	-13.052	1.00	0.00

(454)

特開2003-135087

905					906				
ATOM	557	C	ASP	64	-4.363	-28.613	-11.126	1.00	0.00
ATOM	558	O	ASP	64	-4.501	-27.887	-10.142	1.00	0.00
ATOM	559	N	SER	65	-5.399	-29.185	-11.749	1.00	0.00
ATOM	560	CA	SER	65	-6.792	-29.030	-11.348	1.00	0.00
ATOM	561	CB	SER	65	-7.288	-27.620	-11.712	1.00	0.00
ATOM	562	OG	SER	65	-8.505	-27.337	-11.047	1.00	0.00
ATOM	563	C	SER	65	-7.644	-30.123	-12.005	1.00	0.00
ATOM	564	O	SER	65	-7.116	-31.117	-12.498	1.00	0.00
ATOM	565	N	GLU	66	-8.968	-29.932	-12.013	1.00	0.00
ATOM	566	CA	GLU	66	-9.917	-30.863	-12.607	1.00	0.00
ATOM	567	CB	GLU	66	-11.340	-30.493	-12.161	1.00	0.00
ATOM	568	CG	GLU	66	-12.376	-31.524	-12.625	1.00	0.00
ATOM	569	CD	GLU	66	-13.756	-31.215	-12.053	1.00	0.00
ATOM	570	OE1	GLU	66	-14.169	-31.951	-11.130	1.00	0.00
ATOM	571	OE2	GLU	66	-14.372	-30.244	-12.544	1.00	0.00
ATOM	572	C	GLU	66	-9.767	-30.855	-14.132	1.00	0.00
ATOM	573	O	GLU	66	-9.711	-31.914	-14.756	1.00	0.00
ATOM	574	N	ASP	67	-9.697	-29.653	-14.713	1.00	0.00
ATOM	575	CA	ASP	67	-9.542	-29.401	-16.137	1.00	0.00
ATOM	576	CB	ASP	67	-10.907	-29.496	-16.834	1.00	0.00
ATOM	577	CG	ASP	67	-10.800	-29.284	-18.341	1.00	0.00
ATOM	578	OD1	ASP	67	-11.264	-28.220	-18.805	1.00	0.00
ATOM	579	OD2	ASP	67	-10.290	-30.209	-19.012	1.00	0.00
ATOM	580	C	ASP	67	-8.931	-28.004	-16.287	1.00	0.00
ATOM	581	OT1	ASP	67	-9.223	-27.184	-15.385	1.00	0.00
ATOM	582	OT2	ASP	67	-7.910	-27.920	-17.004	1.00	0.00
ATOM	583	O5'	GUA	68	-7.854	-39.946	11.203	1.00	0.00
ATOM	584	C5'	GUA	68	-7.535	-40.813	10.134	1.00	0.00
ATOM	585	C4'	GUA	68	-7.697	-40.110	8.782	1.00	0.00
ATOM	586	O4'	GUA	68	-8.993	-39.565	8.649	1.00	0.00
ATOM	587	C1'	GUA	68	-8.956	-38.541	7.680	1.00	0.00
ATOM	588	N9	GUA	68	-10.122	-37.652	7.873	1.00	0.00
ATOM	589	C8	GUA	68	-10.570	-37.106	9.047	1.00	0.00
ATOM	590	N7	GUA	68	-11.683	-36.438	8.937	1.00	0.00
ATOM	591	C5	GUA	68	-11.992	-36.533	7.584	1.00	0.00
ATOM	592	C6	GUA	68	-13.101	-36.007	6.857	1.00	0.00
ATOM	593	O6	GUA	68	-14.075	-35.401	7.296	1.00	0.00
ATOM	594	N1	GUA	68	-12.998	-36.247	5.492	1.00	0.00
ATOM	595	C2	GUA	68	-11.976	-36.955	4.895	1.00	0.00
ATOM	596	N2	GUA	68	-11.992	-37.077	3.567	1.00	0.00
ATOM	597	N3	GUA	68	-10.960	-37.496	5.583	1.00	0.00
ATOM	598	C4	GUA	68	-11.023	-37.246	6.917	1.00	0.00
ATOM	599	C3'	GUA	68	-6.725	-38.938	8.566	1.00	0.00
ATOM	600	C2'	GUA	68	-7.652	-37.843	8.023	1.00	0.00
ATOM	601	O3'	GUA	68	-5.729	-39.365	7.646	1.00	0.00
ATOM	602	P	THY	69	-4.516	-38.419	7.137	1.00	0.00
ATOM	603	OP1	THY	69	-4.042	-37.609	8.281	1.00	0.00
ATOM	604	OP2	THY	69	-3.563	-39.260	6.380	1.00	0.00
ATOM	605	O5'	THY	69	-5.242	-37.438	6.087	1.00	0.00
ATOM	606	C5'	THY	69	-6.027	-37.959	5.032	1.00	0.00

(455)

特開2003-135087

907

908

ATOM	607	C4'	THY	69	-6.973	-36.900	4.454	1.00	0.00
ATOM	608	O4'	THY	69	-8.014	-36.428	5.273	1.00	0.00
ATOM	609	C1'	THY	69	-8.496	-35.236	4.699	1.00	0.00
ATOM	610	N1	THY	69	-9.384	-34.524	5.655	1.00	0.00
ATOM	611	C6	THY	69	-9.060	-34.484	6.989	1.00	0.00
ATOM	612	C5	THY	69	-9.862	-33.860	7.887	1.00	0.00
ATOM	613	C7	THY	69	-9.383	-33.843	9.326	1.00	0.00
ATOM	614	C4	THY	69	-11.110	-33.240	7.485	1.00	0.00
ATOM	615	O4	THY	69	-11.907	-32.673	8.228	1.00	0.00
ATOM	616	N3	THY	69	-11.373	-33.338	6.129	1.00	0.00
ATOM	617	C2	THY	69	-10.559	-33.938	5.181	1.00	0.00
ATOM	618	O2	THY	69	-10.884	-33.936	3.998	1.00	0.00
ATOM	619	C3'	THY	69	-6.262	-35.633	3.963	1.00	0.00
ATOM	620	C2'	THY	69	-7.175	-34.514	4.474	1.00	0.00
ATOM	621	O3'	THY	69	-6.115	-35.643	2.554	1.00	0.00
ATOM	622	P	THY	70	-5.281	-34.489	1.798	1.00	0.00
ATOM	623	OP1	THY	70	-4.563	-35.103	0.656	1.00	0.00
ATOM	624	OP2	THY	70	-4.501	-33.764	2.820	1.00	0.00
ATOM	625	O5'	THY	70	-6.412	-33.487	1.253	1.00	0.00
ATOM	626	C5'	THY	70	-7.378	-33.883	0.297	1.00	0.00
ATOM	627	C4'	THY	70	-8.525	-32.866	0.311	1.00	0.00
ATOM	628	O4'	THY	70	-9.008	-32.738	1.633	1.00	0.00
ATOM	629	C1'	THY	70	-9.670	-31.501	1.738	1.00	0.00
ATOM	630	N1	THY	70	-9.831	-31.109	3.162	1.00	0.00
ATOM	631	C6	THY	70	-8.777	-31.232	4.035	1.00	0.00
ATOM	632	C5	THY	70	-8.912	-30.914	5.347	1.00	0.00
ATOM	633	C7	THY	70	-7.674	-31.103	6.200	1.00	0.00
ATOM	634	C4	THY	70	-10.167	-30.431	5.884	1.00	0.00
ATOM	635	O4	THY	70	-10.375	-30.106	7.049	1.00	0.00
ATOM	636	N3	THY	70	-11.184	-30.356	4.948	1.00	0.00
ATOM	637	C2	THY	70	-11.067	-30.632	3.595	1.00	0.00
ATOM	638	O2	THY	70	-12.010	-30.421	2.838	1.00	0.00
ATOM	639	C3'	THY	70	-8.103	-31.444	-0.088	1.00	0.00
ATOM	640	C2'	THY	70	-8.738	-30.554	0.987	1.00	0.00
ATOM	641	O3'	THY	70	-8.559	-31.130	-1.393	1.00	0.00
ATOM	642	P	ADE	71	-8.161	-29.743	-2.118	1.00	0.00
ATOM	643	OP1	ADE	71	-6.853	-29.300	-1.582	1.00	0.00
ATOM	644	OP2	ADE	71	-8.349	-29.902	-3.575	1.00	0.00
ATOM	645	O5'	ADE	71	-9.248	-28.699	-1.575	1.00	0.00
ATOM	646	C5'	ADE	71	-10.593	-28.681	-2.003	1.00	0.00
ATOM	647	C4'	ADE	71	-11.328	-27.571	-1.236	1.00	0.00
ATOM	648	O4'	ADE	71	-11.549	-27.956	0.123	1.00	0.00
ATOM	649	C1'	ADE	71	-11.239	-26.853	0.949	1.00	0.00
ATOM	650	N9	ADE	71	-10.969	-27.194	2.364	1.00	0.00
ATOM	651	C8	ADE	71	-9.814	-27.711	2.884	1.00	0.00
ATOM	652	N7	ADE	71	-9.721	-27.678	4.181	1.00	0.00
ATOM	653	C5	ADE	71	-10.945	-27.149	4.559	1.00	0.00
ATOM	654	C6	ADE	71	-11.496	-26.856	5.816	1.00	0.00
ATOM	655	N6	ADE	71	-10.828	-27.101	6.944	1.00	0.00
ATOM	656	N1	ADE	71	-12.698	-26.257	5.874	1.00	0.00

909					910				
ATOM	657	C2	ADE	71	-13.336	-25.990	4.736	1.00	0.00
ATOM	658	N3	ADE	71	-12.936	-26.234	3.491	1.00	0.00
ATOM	659	C4	ADE	71	-11.714	-26.834	3.466	1.00	0.00
ATOM	660	C3'	ADE	71	-10.492	-26.274	-1.174	1.00	0.00
ATOM	661	C2'	ADE	71	-9.963	-26.389	0.253	1.00	0.00
ATOM	662	O3'	ADE	71	-11.341	-25.156	-1.318	1.00	0.00
ATOM	663	P	GUA	72	-10.798	-23.661	-1.587	1.00	0.00
ATOM	664	OP1	GUA	72	-9.562	-23.424	-0.800	1.00	0.00
ATOM	665	OP2	GUA	72	-10.822	-23.389	-3.038	1.00	0.00
ATOM	666	O5'	GUA	72	-11.966	-22.823	-0.877	1.00	0.00
ATOM	667	C5'	GUA	72	-13.323	-22.965	-1.246	1.00	0.00
ATOM	668	C4'	GUA	72	-14.204	-22.427	-0.116	1.00	0.00
ATOM	669	O4'	GUA	72	-13.934	-23.139	1.087	1.00	0.00
ATOM	670	C1'	GUA	72	-13.504	-22.268	2.117	1.00	0.00
ATOM	671	N9	GUA	72	-12.414	-22.902	2.901	1.00	0.00
ATOM	672	C8	GUA	72	-11.274	-23.491	2.419	1.00	0.00
ATOM	673	N7	GUA	72	-10.423	-23.874	3.330	1.00	0.00
ATOM	674	C5	GUA	72	-11.071	-23.551	4.519	1.00	0.00
ATOM	675	C6	GUA	72	-10.654	-23.761	5.865	1.00	0.00
ATOM	676	O6	GUA	72	-9.584	-24.235	6.246	1.00	0.00
ATOM	677	N1	GUA	72	-11.616	-23.379	6.791	1.00	0.00
ATOM	678	C2	GUA	72	-12.840	-22.831	6.459	1.00	0.00
ATOM	679	N2	GUA	72	-13.649	-22.470	7.457	1.00	0.00
ATOM	680	N3	GUA	72	-13.221	-22.600	5.193	1.00	0.00
ATOM	681	C4	GUA	72	-12.301	-22.986	4.270	1.00	0.00
ATOM	682	C3'	GUA	72	-13.914	-20.952	0.172	1.00	0.00
ATOM	683	C2'	GUA	72	-12.969	-21.049	1.369	1.00	0.00
ATOM	684	O3'	GUA	72	-15.134	-20.294	0.461	1.00	0.00
ATOM	685	P	GUA	73	-15.225	-18.692	0.631	1.00	0.00
ATOM	686	OP1	GUA	73	-14.127	-18.069	-0.141	1.00	0.00
ATOM	687	OP2	GUA	73	-16.624	-18.279	0.386	1.00	0.00
ATOM	688	O5'	GUA	73	-14.909	-18.511	2.195	1.00	0.00
ATOM	689	C5'	GUA	73	-15.829	-18.953	3.171	1.00	0.00
ATOM	690	C4'	GUA	73	-15.211	-18.846	4.564	1.00	0.00
ATOM	691	O4'	GUA	73	-14.052	-19.655	4.662	1.00	0.00
ATOM	692	C1'	GUA	73	-13.166	-19.013	5.549	1.00	0.00
ATOM	693	N9	GUA	73	-11.803	-19.577	5.459	1.00	0.00
ATOM	694	C8	GUA	73	-11.015	-19.747	4.352	1.00	0.00
ATOM	695	N7	GUA	73	-9.870	-20.329	4.587	1.00	0.00
ATOM	696	C5	GUA	73	-9.892	-20.543	5.964	1.00	0.00
ATOM	697	C6	GUA	73	-8.926	-21.153	6.821	1.00	0.00
ATOM	698	O6	GUA	73	-7.833	-21.620	6.508	1.00	0.00
ATOM	699	N1	GUA	73	-9.353	-21.223	8.145	1.00	0.00
ATOM	700	C2	GUA	73	-10.577	-20.767	8.593	1.00	0.00
ATOM	701	N2	GUA	73	-10.870	-20.890	9.887	1.00	0.00
ATOM	702	N3	GUA	73	-11.477	-20.182	7.796	1.00	0.00
ATOM	703	C4	GUA	73	-11.076	-20.097	6.500	1.00	0.00
ATOM	704	C3'	GUA	73	-14.763	-17.421	4.938	1.00	0.00
ATOM	705	C2'	GUA	73	-13.243	-17.588	5.020	1.00	0.00
ATOM	706	O3'	GUA	73	-15.340	-17.109	6.194	1.00	0.00

911				912					
ATOM	707	P	GUA	74	-15.251	-15.649	6.876	1.00	0.00
ATOM	708	OP1	GUA	74	-14.198	-14.854	6.207	1.00	0.00
ATOM	709	OP2	GUA	74	-16.622	-15.106	7.002	1.00	0.00
ATOM	710	O5'	GUA	74	-14.720	-16.044	8.342	1.00	0.00
ATOM	711	C5'	GUA	74	-15.507	-16.833	9.214	1.00	0.00
ATOM	712	C4'	GUA	74	-14.732	-17.175	10.491	1.00	0.00
ATOM	713	O4'	GUA	74	-13.534	-17.858	10.153	1.00	0.00
ATOM	714	C1'	GUA	74	-12.412	-17.186	10.694	1.00	0.00
ATOM	715	N9	GUA	74	-11.267	-17.303	9.763	1.00	0.00
ATOM	716	C8	GUA	74	-11.223	-16.965	8.433	1.00	0.00
ATOM	717	N7	GUA	74	-10.081	-17.210	7.854	1.00	0.00
ATOM	718	C5	GUA	74	-9.310	-17.765	8.868	1.00	0.00
ATOM	719	C6	GUA	74	-7.981	-18.278	8.826	1.00	0.00
ATOM	720	O6	GUA	74	-7.227	-18.322	7.860	1.00	0.00
ATOM	721	N1	GUA	74	-7.563	-18.786	10.051	1.00	0.00
ATOM	722	C2	GUA	74	-8.343	-18.806	11.189	1.00	0.00
ATOM	723	N2	GUA	74	-7.794	-19.278	12.311	1.00	0.00
ATOM	724	N3	GUA	74	-9.593	-18.324	11.232	1.00	0.00
ATOM	725	C4	GUA	74	-10.024	-17.826	10.042	1.00	0.00
ATOM	726	C3'	GUA	74	-14.320	-15.932	11.291	1.00	0.00
ATOM	727	C2'	GUA	74	-12.878	-15.739	10.826	1.00	0.00
ATOM	728	O3'	GUA	74	-14.425	-16.227	12.673	1.00	0.00
ATOM	729	P	THY	75	-14.078	-15.150	13.824	1.00	0.00
ATOM	730	OP1	THY	75	-15.036	-15.334	14.936	1.00	0.00
ATOM	731	OP2	THY	75	-13.919	-13.817	13.202	1.00	0.00
ATOM	732	O5'	THY	75	-12.630	-15.650	14.315	1.00	0.00
ATOM	733	C5'	THY	75	-12.480	-16.898	14.965	1.00	0.00
ATOM	734	C4'	THY	75	-11.010	-17.145	15.307	1.00	0.00
ATOM	735	O4'	THY	75	-10.235	-17.093	14.123	1.00	0.00
ATOM	736	C1'	THY	75	-9.040	-16.390	14.373	1.00	0.00
ATOM	737	N1	THY	75	-8.491	-15.856	13.097	1.00	0.00
ATOM	738	C6	THY	75	-9.280	-15.104	12.255	1.00	0.00
ATOM	739	C5	THY	75	-8.841	-14.723	11.027	1.00	0.00
ATOM	740	C7	THY	75	-9.784	-13.869	10.202	1.00	0.00
ATOM	741	C4	THY	75	-7.537	-15.118	10.536	1.00	0.00
ATOM	742	O4	THY	75	-7.080	-14.897	9.416	1.00	0.00
ATOM	743	N3	THY	75	-6.790	-15.818	11.461	1.00	0.00
ATOM	744	C2	THY	75	-7.193	-16.206	12.727	1.00	0.00
ATOM	745	O2	THY	75	-6.421	-16.828	13.451	1.00	0.00
ATOM	746	C3'	THY	75	-10.429	-16.081	16.252	1.00	0.00
ATOM	747	C2'	THY	75	-9.509	-15.291	15.321	1.00	0.00
ATOM	748	O3'	THY	75	-9.735	-16.735	17.299	1.00	0.00
ATOM	749	P	THY	76	-9.041	-15.930	18.514	1.00	0.00
ATOM	750	OP1	THY	76	-9.133	-16.761	19.735	1.00	0.00
ATOM	751	OP2	THY	76	-9.554	-14.542	18.525	1.00	0.00
ATOM	752	O5'	THY	76	-7.503	-15.892	18.046	1.00	0.00
ATOM	753	C5'	THY	76	-6.716	-17.067	18.039	1.00	0.00
ATOM	754	C4'	THY	76	-5.310	-16.764	17.521	1.00	0.00
ATOM	755	O4'	THY	76	-5.379	-16.314	16.178	1.00	0.00
ATOM	756	C1'	THY	76	-4.503	-15.223	16.015	1.00	0.00

913				914					
ATOM	757	N1	THY	76	-4.837	-14.458	14.781	1.00	0.00
ATOM	758	C6	THY	76	-5.991	-13.710	14.699	1.00	0.00
ATOM	759	C5	THY	76	-6.319	-13.048	13.561	1.00	0.00
ATOM	760	C7	THY	76	-7.612	-12.256	13.604	1.00	0.00
ATOM	761	C4	THY	76	-5.482	-13.102	12.380	1.00	0.00
ATOM	762	O4	THY	76	-5.706	-12.534	11.315	1.00	0.00
ATOM	763	N3	THY	76	-4.365	-13.902	12.526	1.00	0.00
ATOM	764	C2	THY	76	-4.001	-14.599	13.669	1.00	0.00
ATOM	765	O2	THY	76	-2.989	-15.302	13.660	1.00	0.00
ATOM	766	C3'	THY	76	-4.609	-15.645	18.310	1.00	0.00
ATOM	767	C2'	THY	76	-4.713	-14.474	17.332	1.00	0.00
ATOM	768	O3'	THY	76	-3.260	-16.019	18.516	1.00	0.00
ATOM	769	P	ADE	77	-2.332	-15.323	19.636	1.00	0.00
ATOM	770	OP1	ADE	77	-2.742	-13.912	19.799	1.00	0.00
ATOM	771	OP2	ADE	77	-2.259	-16.220	20.810	1.00	0.00
ATOM	772	O5'	ADE	77	-0.910	-15.343	18.886	1.00	0.00
ATOM	773	C5'	ADE	77	-0.247	-16.561	18.624	1.00	0.00
ATOM	774	C4'	ADE	77	0.737	-16.389	17.466	1.00	0.00
ATOM	775	O4'	ADE	77	0.060	-15.825	16.356	1.00	0.00
ATOM	776	C1'	ADE	77	0.728	-14.671	15.884	1.00	0.00
ATOM	777	N9	ADE	77	-0.283	-13.717	15.380	1.00	0.00
ATOM	778	C8	ADE	77	-1.430	-13.301	16.009	1.00	0.00
ATOM	779	N7	ADE	77	-2.200	-12.541	15.283	1.00	0.00
ATOM	780	C5	ADE	77	-1.500	-12.424	14.090	1.00	0.00
ATOM	781	C6	ADE	77	-1.773	-11.738	12.893	1.00	0.00
ATOM	782	N6	ADE	77	-2.889	-11.027	12.731	1.00	0.00
ATOM	783	N1	ADE	77	-0.867	-11.784	11.897	1.00	0.00
ATOM	784	C2	ADE	77	0.249	-12.488	12.082	1.00	0.00
ATOM	785	N3	ADE	77	0.601	-13.216	13.141	1.00	0.00
ATOM	786	C4	ADE	77	-0.323	-13.126	14.137	1.00	0.00
ATOM	787	C3'	ADE	77	1.914	-15.457	17.765	1.00	0.00
ATOM	788	C2'	ADE	77	1.455	-14.149	17.119	1.00	0.00
ATOM	789	O3'	ADE	77	3.049	-16.035	17.143	1.00	0.00
ATOM	790	P	GUA	78	4.548	-15.555	17.458	1.00	0.00
ATOM	791	OP1	GUA	78	4.640	-15.172	18.882	1.00	0.00
ATOM	792	OP2	GUA	78	5.476	-16.573	16.919	1.00	0.00
ATOM	793	O5'	GUA	78	4.672	-14.241	16.557	1.00	0.00
ATOM	794	C5'	GUA	78	4.915	-14.327	15.168	1.00	0.00
ATOM	795	C4'	GUA	78	4.865	-12.934	14.542	1.00	0.00
ATOM	796	O4'	GUA	78	3.541	-12.458	14.464	1.00	0.00
ATOM	797	C1'	GUA	78	3.638	-11.074	14.228	1.00	0.00
ATOM	798	N9	GUA	78	2.313	-10.432	14.374	1.00	0.00
ATOM	799	C8	GUA	78	1.434	-10.502	15.423	1.00	0.00
ATOM	800	N7	GUA	78	0.284	-9.929	15.192	1.00	0.00
ATOM	801	C5	GUA	78	0.407	-9.434	13.897	1.00	0.00
ATOM	802	C6	GUA	78	-0.529	-8.732	13.075	1.00	0.00
ATOM	803	O6	GUA	78	-1.671	-8.370	13.353	1.00	0.00
ATOM	804	N1	GUA	78	-0.020	-8.454	11.811	1.00	0.00
ATOM	805	C2	GUA	78	1.239	-8.813	11.377	1.00	0.00
ATOM	806	N2	GUA	78	1.578	-8.506	10.125	1.00	0.00

915				916				
ATOM	807	N3	GUA	78	2.122	-9.461	12.148	1.00 0.00
ATOM	808	C4	GUA	78	1.649	-9.742	13.390	1.00 0.00
ATOM	809	C3'	GUA	78	5.621	-11.847	15.328	1.00 0.00
ATOM	810	C2'	GUA	78	4.643	-10.660	15.297	1.00 0.00
ATOM	811	O3'	GUA	78	6.865	-11.615	14.692	1.00 0.00
ATOM	812	P	GUA	79	7.957	-10.587	15.279	1.00 0.00
ATOM	813	OP1	GUA	79	9.294	-11.033	14.826	1.00 0.00
ATOM	814	OP2	GUA	79	7.710	-10.404	16.725	1.00 0.00
ATOM	815	O5'	GUA	79	7.577	-9.227	14.513	1.00 0.00
ATOM	816	C5'	GUA	79	7.755	-9.105	13.116	1.00 0.00
ATOM	817	C4'	GUA	79	7.048	-7.846	12.609	1.00 0.00
ATOM	818	O4'	GUA	79	5.665	-7.906	12.901	1.00 0.00
ATOM	819	C1'	GUA	79	5.178	-6.587	12.981	1.00 0.00
ATOM	820	N9	GUA	79	3.867	-6.576	13.672	1.00 0.00
ATOM	821	C8	GUA	79	3.556	-7.109	14.898	1.00 0.00
ATOM	822	N7	GUA	79	2.307	-6.972	15.242	1.00 0.00
ATOM	823	C5	GUA	79	1.739	-6.306	14.165	1.00 0.00
ATOM	824	C6	GUA	79	0.393	-5.880	13.962	1.00 0.00
ATOM	825	O6	GUA	79	-0.556	-5.975	14.736	1.00 0.00
ATOM	826	N1	GUA	79	0.200	-5.298	12.716	1.00 0.00
ATOM	827	C2	GUA	79	1.198	-5.105	11.783	1.00 0.00
ATOM	828	N2	GUA	79	0.864	-4.493	10.645	1.00 0.00
ATOM	829	N3	GUA	79	2.473	-5.473	11.984	1.00 0.00
ATOM	830	C4	GUA	79	2.678	-6.076	13.187	1.00 0.00
ATOM	831	C3'	GUA	79	7.562	-6.555	13.265	1.00 0.00
ATOM	832	C2'	GUA	79	6.275	-5.914	13.802	1.00 0.00
ATOM	833	O3'	GUA	79	8.229	-5.784	12.278	1.00 0.00
ATOM	834	P	GUA	80	8.962	-4.383	12.610	1.00 0.00
ATOM	835	OP1	GUA	80	9.282	-4.337	14.053	1.00 0.00
ATOM	836	OP2	GUA	80	10.030	-4.168	11.609	1.00 0.00
ATOM	837	O5'	GUA	80	7.786	-3.326	12.319	1.00 0.00
ATOM	838	C5'	GUA	80	7.306	-3.122	11.005	1.00 0.00
ATOM	839	C4'	GUA	80	6.024	-2.291	11.042	1.00 0.00
ATOM	840	O4'	GUA	80	5.048	-2.939	11.837	1.00 0.00
ATOM	841	C1'	GUA	80	4.248	-1.946	12.431	1.00 0.00
ATOM	842	N9	GUA	80	3.466	-2.489	13.562	1.00 0.00
ATOM	843	C8	GUA	80	3.920	-3.129	14.686	1.00 0.00
ATOM	844	N7	GUA	80	2.985	-3.440	15.538	1.00 0.00
ATOM	845	C5	GUA	80	1.818	-2.988	14.931	1.00 0.00
ATOM	846	C6	GUA	80	0.463	-3.047	15.376	1.00 0.00
ATOM	847	O6	GUA	80	0.026	-3.489	16.436	1.00 0.00
ATOM	848	N1	GUA	80	-0.425	-2.539	14.433	1.00 0.00
ATOM	849	C2	GUA	80	-0.058	-2.005	13.217	1.00 0.00
ATOM	850	N2	GUA	80	-1.030	-1.563	12.418	1.00 0.00
ATOM	851	N3	GUA	80	1.217	-1.913	12.811	1.00 0.00
ATOM	852	C4	GUA	80	2.102	-2.429	13.707	1.00 0.00
ATOM	853	C3'	GUA	80	6.213	-0.898	11.666	1.00 0.00
ATOM	854	C2'	GUA	80	5.305	-0.946	12.892	1.00 0.00
ATOM	855	O3'	GUA	80	5.770	0.110	10.779	1.00 0.00
ATOM	856	O5'	CYT	81	-9.480	-0.008	16.475	1.00 0.00

917				918				
ATOM	857	C5' CYT	81	-9.040	1.002	15.593	1.00	0.00
ATOM	858	C4' CYT	81	-7.938	0.465	14.676	1.00	0.00
ATOM	859	O4' CYT	81	-6.880	-0.093	15.426	1.00	0.00
ATOM	860	C1' CYT	81	-6.119	-0.867	14.526	1.00	0.00
ATOM	861	N1 CYT	81	-5.212	-1.795	15.244	1.00	0.00
ATOM	862	C6 CYT	81	-5.677	-2.538	16.300	1.00	0.00
ATOM	863	C5 CYT	81	-4.888	-3.428	16.943	1.00	0.00
ATOM	864	C4 CYT	81	-3.532	-3.542	16.485	1.00	0.00
ATOM	865	N4 CYT	81	-2.681	-4.379	17.082	1.00	0.00
ATOM	866	N3 CYT	81	-3.091	-2.827	15.444	1.00	0.00
ATOM	867	C2 CYT	81	-3.907	-1.958	14.787	1.00	0.00
ATOM	868	O2 CYT	81	-3.483	-1.347	13.808	1.00	0.00
ATOM	869	C3' CYT	81	-8.391	-0.679	13.757	1.00	0.00
ATOM	870	C2' CYT	81	-7.197	-1.637	13.775	1.00	0.00
ATOM	871	O3' CYT	81	-8.686	-0.153	12.473	1.00	0.00
ATOM	872	P CYT	82	-9.173	-1.083	11.245	1.00	0.00
ATOM	873	OP1 CYT	82	-9.677	-2.360	11.799	1.00	0.00
ATOM	874	OP2 CYT	82	-10.040	-0.267	10.367	1.00	0.00
ATOM	875	O5' CYT	82	-7.796	-1.385	10.461	1.00	0.00
ATOM	876	C5' CYT	82	-7.104	-0.364	9.764	1.00	0.00
ATOM	877	C4' CYT	82	-5.843	-0.929	9.097	1.00	0.00
ATOM	878	O4' CYT	82	-4.982	-1.466	10.080	1.00	0.00
ATOM	879	C1' CYT	82	-4.370	-2.650	9.610	1.00	0.00
ATOM	880	N1 CYT	82	-4.094	-3.499	10.798	1.00	0.00
ATOM	881	C6 CYT	82	-5.117	-3.763	11.670	1.00	0.00
ATOM	882	C5 CYT	82	-4.931	-4.481	12.794	1.00	0.00
ATOM	883	C4 CYT	82	-3.602	-4.962	13.041	1.00	0.00
ATOM	884	N4 CYT	82	-3.367	-5.750	14.091	1.00	0.00
ATOM	885	N3 CYT	82	-2.593	-4.678	12.204	1.00	0.00
ATOM	886	C2 CYT	82	-2.801	-3.950	11.068	1.00	0.00
ATOM	887	O2 CYT	82	-1.863	-3.717	10.307	1.00	0.00
ATOM	888	C3' CYT	82	-6.147	-2.065	8.110	1.00	0.00
ATOM	889	C2' CYT	82	-5.446	-3.277	8.722	1.00	0.00
ATOM	890	O3' CYT	82	-5.655	-1.699	6.830	1.00	0.00
ATOM	891	P CYT	83	-5.979	-2.552	5.497	1.00	0.00
ATOM	892	OP1 CYT	83	-5.940	-1.631	4.339	1.00	0.00
ATOM	893	OP2 CYT	83	-7.183	-3.376	5.745	1.00	0.00
ATOM	894	O5' CYT	83	-4.709	-3.534	5.406	1.00	0.00
ATOM	895	C5' CYT	83	-3.487	-3.118	4.824	1.00	0.00
ATOM	896	C4' CYT	83	-2.408	-4.171	5.093	1.00	0.00
ATOM	897	O4' CYT	83	-2.281	-4.356	6.486	1.00	0.00
ATOM	898	C1' CYT	83	-1.652	-5.594	6.739	1.00	0.00
ATOM	899	N1 CYT	83	-2.228	-6.188	7.969	1.00	0.00
ATOM	900	C6 CYT	83	-3.587	-6.242	8.113	1.00	0.00
ATOM	901	C5 CYT	83	-4.164	-6.698	9.248	1.00	0.00
ATOM	902	C4 CYT	83	-3.281	-7.168	10.278	1.00	0.00
ATOM	903	N4 CYT	83	-3.772	-7.660	11.416	1.00	0.00
ATOM	904	N3 CYT	83	-1.951	-7.164	10.109	1.00	0.00
ATOM	905	C2 CYT	83	-1.390	-6.679	8.966	1.00	0.00
ATOM	906	O2 CYT	83	-0.170	-6.696	8.825	1.00	0.00

919				920				
ATOM	907	C3' CYT	83	-2.775	-5.563	4.572	1.00	0.00
ATOM	908	C2' CYT	83	-1.997	-6.464	5.529	1.00	0.00
ATOM	909	O3' CYT	83	-2.369	-5.745	3.225	1.00	0.00
ATOM	910	P THY	84	-2.778	-7.059	2.371	1.00	0.00
ATOM	911	OP1 THY	84	-2.329	-6.856	0.976	1.00	0.00
ATOM	912	OP2 THY	84	-4.199	-7.368	2.645	1.00	0.00
ATOM	913	O5' THY	84	-1.889	-8.244	3.007	1.00	0.00
ATOM	914	C5' THY	84	-0.493	-8.328	2.784	1.00	0.00
ATOM	915	C4' THY	84	0.098	-9.413	3.691	1.00	0.00
ATOM	916	O4' THY	84	-0.354	-9.228	5.018	1.00	0.00
ATOM	917	C1' THY	84	-0.224	-10.441	5.719	1.00	0.00
ATOM	918	N1 THY	84	-1.156	-10.458	6.881	1.00	0.00
ATOM	919	C6 THY	84	-2.457	-10.049	6.714	1.00	0.00
ATOM	920	C5 THY	84	-3.326	-10.028	7.752	1.00	0.00
ATOM	921	C7 THY	84	-4.737	-9.575	7.421	1.00	0.00
ATOM	922	C4 THY	84	-2.927	-10.431	9.084	1.00	0.00
ATOM	923	O4 THY	84	-3.650	-10.429	10.075	1.00	0.00
ATOM	924	N3 THY	84	-1.609	-10.856	9.175	1.00	0.00
ATOM	925	C2 THY	84	-0.700	-10.904	8.126	1.00	0.00
ATOM	926	O2 THY	84	0.437	-11.332	8.310	1.00	0.00
ATOM	927	C3' THY	84	-0.348	-10.830	3.308	1.00	0.00
ATOM	928	C2' THY	84	-0.620	-11.481	4.671	1.00	0.00
ATOM	929	O3' THY	84	0.675	-11.458	2.547	1.00	0.00
ATOM	930	P ADE	85	0.579	-12.988	2.024	1.00	0.00
ATOM	931	OP1 ADE	85	-0.845	-13.331	1.800	1.00	0.00
ATOM	932	OP2 ADE	85	1.539	-13.168	0.913	1.00	0.00
ATOM	933	O5' ADE	85	1.116	-13.836	3.285	1.00	0.00
ATOM	934	C5' ADE	85	2.407	-13.604	3.819	1.00	0.00
ATOM	935	C4' ADE	85	2.592	-14.299	5.175	1.00	0.00
ATOM	936	O4' ADE	85	1.578	-13.887	6.080	1.00	0.00
ATOM	937	C1' ADE	85	0.899	-15.006	6.618	1.00	0.00
ATOM	938	N9 ADE	85	-0.527	-14.665	6.847	1.00	0.00
ATOM	939	C8 ADE	85	-1.492	-14.341	5.922	1.00	0.00
ATOM	940	N7 ADE	85	-2.622	-13.942	6.433	1.00	0.00
ATOM	941	C5 ADE	85	-2.409	-14.042	7.800	1.00	0.00
ATOM	942	C6 ADE	85	-3.224	-13.767	8.914	1.00	0.00
ATOM	943	N6 ADE	85	-4.466	-13.292	8.796	1.00	0.00
ATOM	944	N1 ADE	85	-2.735	-14.012	10.142	1.00	0.00
ATOM	945	C2 ADE	85	-1.498	-14.483	10.255	1.00	0.00
ATOM	946	N3 ADE	85	-0.621	-14.759	9.298	1.00	0.00
ATOM	947	C4 ADE	85	-1.146	-14.511	8.066	1.00	0.00
ATOM	948	C3' ADE	85	2.510	-15.826	5.098	1.00	0.00
ATOM	949	C2' ADE	85	1.070	-16.070	5.539	1.00	0.00
ATOM	950	O3' ADE	85	3.477	-16.371	5.983	1.00	0.00
ATOM	951	P ADE	86	3.680	-17.958	6.166	1.00	0.00
ATOM	952	OP1 ADE	86	5.127	-18.238	6.328	1.00	0.00
ATOM	953	OP2 ADE	86	2.918	-18.642	5.096	1.00	0.00
ATOM	954	O5' ADE	86	2.950	-18.250	7.562	1.00	0.00
ATOM	955	C5' ADE	86	3.511	-17.803	8.778	1.00	0.00
ATOM	956	C4' ADE	86	2.712	-18.366	9.951	1.00	0.00

921				922					
ATOM	957	O4'	ADE	86	1.417	-17.791	9.946	1.00	0.00
ATOM	958	C1'	ADE	86	0.429	-18.793	10.052	1.00	0.00
ATOM	959	N9	ADE	86	-0.784	-18.339	9.332	1.00	0.00
ATOM	960	C8	ADE	86	-0.957	-18.146	7.982	1.00	0.00
ATOM	961	N7	ADE	86	-2.100	-17.612	7.651	1.00	0.00
ATOM	962	C5	ADE	86	-2.745	-17.456	8.869	1.00	0.00
ATOM	963	C6	ADE	86	-4.009	-16.949	9.224	1.00	0.00
ATOM	964	N6	ADE	86	-4.871	-16.456	8.331	1.00	0.00
ATOM	965	N1	ADE	86	-4.349	-16.937	10.524	1.00	0.00
ATOM	966	C2	ADE	86	-3.495	-17.409	11.423	1.00	0.00
ATOM	967	N3	ADE	86	-2.277	-17.899	11.223	1.00	0.00
ATOM	968	C4	ADE	86	-1.955	-17.899	9.901	1.00	0.00
ATOM	969	C3'	ADE	86	2.533	-19.890	9.855	1.00	0.00
ATOM	970	C2'	ADE	86	1.079	-20.015	9.405	1.00	0.00
ATOM	971	O3'	ADE	86	2.815	-20.472	11.114	1.00	0.00
ATOM	972	P	CYT	87	2.718	-22.063	11.375	1.00	0.00
ATOM	973	OP1	CYT	87	2.756	-22.771	10.073	1.00	0.00
ATOM	974	OP2	CYT	87	3.703	-22.422	12.422	1.00	0.00
ATOM	975	O5'	CYT	87	1.236	-22.176	11.995	1.00	0.00
ATOM	976	C5'	CYT	87	0.921	-21.524	13.210	1.00	0.00
ATOM	977	C4'	CYT	87	-0.589	-21.447	13.427	1.00	0.00
ATOM	978	O4'	CYT	87	-1.228	-20.850	12.321	1.00	0.00
ATOM	979	C1'	CYT	87	-2.575	-21.264	12.331	1.00	0.00
ATOM	980	N1	CYT	87	-3.205	-21.014	11.007	1.00	0.00
ATOM	981	C6	CYT	87	-2.513	-21.278	9.849	1.00	0.00
ATOM	982	C5	CYT	87	-3.010	-20.938	8.637	1.00	0.00
ATOM	983	C4	CYT	87	-4.286	-20.282	8.619	1.00	0.00
ATOM	984	N4	CYT	87	-4.784	-19.821	7.475	1.00	0.00
ATOM	985	N3	CYT	87	-4.973	-20.061	9.746	1.00	0.00
ATOM	986	C2	CYT	87	-4.471	-20.432	10.957	1.00	0.00
ATOM	987	O2	CYT	87	-5.134	-20.234	11.971	1.00	0.00
ATOM	988	C3'	CYT	87	-1.254	-22.816	13.600	1.00	0.00
ATOM	989	C2'	CYT	87	-2.435	-22.752	12.629	1.00	0.00
ATOM	990	O3'	CYT	87	-1.632	-22.952	14.961	1.00	0.00
ATOM	991	P	CYT	88	-2.282	-24.302	15.559	1.00	0.00
ATOM	992	OP1	CYT	88	-2.015	-24.325	17.014	1.00	0.00
ATOM	993	OP2	CYT	88	-1.855	-25.439	14.713	1.00	0.00
ATOM	994	O5'	CYT	88	-3.860	-24.062	15.329	1.00	0.00
ATOM	995	C5'	CYT	88	-4.567	-23.056	16.035	1.00	0.00
ATOM	996	C4'	CYT	88	-5.942	-22.824	15.398	1.00	0.00
ATOM	997	O4'	CYT	88	-5.784	-22.513	14.031	1.00	0.00
ATOM	998	C1'	CYT	88	-6.989	-22.799	13.361	1.00	0.00
ATOM	999	N1	CYT	88	-6.723	-22.994	11.914	1.00	0.00
ATOM	1000	C6	CYT	88	-5.599	-23.666	11.512	1.00	0.00
ATOM	1001	C5	CYT	88	-5.221	-23.710	10.218	1.00	0.00
ATOM	1002	C4	CYT	88	-6.076	-23.045	9.273	1.00	0.00
ATOM	1003	N4	CYT	88	-5.748	-22.996	7.981	1.00	0.00
ATOM	1004	N3	CYT	88	-7.228	-22.480	9.658	1.00	0.00
ATOM	1005	C2	CYT	88	-7.590	-22.449	10.972	1.00	0.00
ATOM	1006	O2	CYT	88	-8.668	-21.966	11.302	1.00	0.00

(463)

特開2003-135087

	923						924	
ATOM	1007	C3' CYT	88	-6.865	-24.050	15.426	1.00	0.00
ATOM	1008	C2' CYT	88	-7.436	-24.102	14.006	1.00	0.00
ATOM	1009	O3' CYT	88	-7.863	-23.866	16.418	1.00	0.00
ATOM	1010	P CYT	89	-9.029	-24.952	16.705	1.00	0.00
ATOM	1011	OP1 CYT	89	-9.443	-24.819	18.119	1.00	0.00
ATOM	1012	OP2 CYT	89	-8.583	-26.266	16.190	1.00	0.00
ATOM	1013	O5' CYT	89	-10.248	-24.447	15.774	1.00	0.00
ATOM	1014	C5' CYT	89	-10.943	-23.241	16.046	1.00	0.00
ATOM	1015	C4' CYT	89	-12.050	-23.018	15.008	1.00	0.00
ATOM	1016	O4' CYT	89	-11.482	-22.957	13.714	1.00	0.00
ATOM	1017	C1' CYT	89	-12.313	-23.603	12.770	1.00	0.00
ATOM	1018	N1 CYT	89	-11.449	-24.164	11.700	1.00	0.00
ATOM	1019	C6 CYT	89	-10.339	-24.884	12.055	1.00	0.00
ATOM	1020	C5 CYT	89	-9.438	-25.305	11.145	1.00	0.00
ATOM	1021	C4 CYT	89	-9.704	-24.972	9.777	1.00	0.00
ATOM	1022	N4 CYT	89	-8.847	-25.337	8.824	1.00	0.00
ATOM	1023	N3 CYT	89	-10.813	-24.308	9.419	1.00	0.00
ATOM	1024	C2 CYT	89	-11.717	-23.899	10.358	1.00	0.00
ATOM	1025	O2 CYT	89	-12.742	-23.318	10.010	1.00	0.00
ATOM	1026	C3' CYT	89	-13.083	-24.156	14.983	1.00	0.00
ATOM	1027	C2' CYT	89	-12.950	-24.727	13.577	1.00	0.00
ATOM	1028	O3' CYT	89	-14.377	-23.636	15.253	1.00	0.00
ATOM	1029	P THY	90	-15.708	-24.561	15.296	1.00	0.00
ATOM	1030	OP1 THY	90	-15.294	-25.977	15.415	1.00	0.00
ATOM	1031	OP2 THY	90	-16.642	-23.981	16.287	1.00	0.00
ATOM	1032	O5' THY	90	-16.342	-24.356	13.827	1.00	0.00
ATOM	1033	C5' THY	90	-16.849	-23.099	13.416	1.00	0.00
ATOM	1034	C4' THY	90	-17.283	-23.143	11.946	1.00	0.00
ATOM	1035	O4' THY	90	-16.191	-23.593	11.165	1.00	0.00
ATOM	1036	C1' THY	90	-16.611	-24.574	10.241	1.00	0.00
ATOM	1037	N1 THY	90	-15.462	-25.486	9.991	1.00	0.00
ATOM	1038	C6 THY	90	-14.939	-26.227	11.024	1.00	0.00
ATOM	1039	C5 THY	90	-13.803	-26.947	10.875	1.00	0.00
ATOM	1040	C7 THY	90	-13.359	-27.774	12.069	1.00	0.00
ATOM	1041	C4 THY	90	-13.063	-26.935	9.635	1.00	0.00
ATOM	1042	O4 THY	90	-11.984	-27.489	9.454	1.00	0.00
ATOM	1043	N3 THY	90	-13.670	-26.209	8.620	1.00	0.00
ATOM	1044	C2 THY	90	-14.862	-25.503	8.731	1.00	0.00
ATOM	1045	O2 THY	90	-15.345	-24.950	7.746	1.00	0.00
ATOM	1046	C3' THY	90	-18.455	-24.101	11.673	1.00	0.00
ATOM	1047	C2' THY	90	-17.779	-25.265	10.951	1.00	0.00
ATOM	1048	O3' THY	90	-19.427	-23.443	10.876	1.00	0.00
ATOM	1049	P ADE	91	-20.852	-24.116	10.509	1.00	0.00
ATOM	1050	OP1 ADE	91	-21.794	-23.035	10.143	1.00	0.00
ATOM	1051	OP2 ADE	91	-21.212	-25.073	11.579	1.00	0.00
ATOM	1052	O5' ADE	91	-20.506	-24.955	9.178	1.00	0.00
ATOM	1053	C5' ADE	91	-20.287	-24.307	7.940	1.00	0.00
ATOM	1054	C4' ADE	91	-19.730	-25.289	6.907	1.00	0.00
ATOM	1055	O4' ADE	91	-18.476	-25.797	7.302	1.00	0.00
ATOM	1056	C1' ADE	91	-18.240	-26.950	6.527	1.00	0.00

925				926					
ATOM	1057	N9	ADE	91	-17.156	-27.740	7.134	1.00	0.00
ATOM	1058	C8	ADE	91	-17.006	-28.078	8.452	1.00	0.00
ATOM	1059	N7	ADE	91	-15.877	-28.675	8.725	1.00	0.00
ATOM	1060	C5	ADE	91	-15.254	-28.767	7.484	1.00	0.00
ATOM	1061	C6	ADE	91	-14.013	-29.284	7.065	1.00	0.00
ATOM	1062	N6	ADE	91	-13.117	-29.792	7.915	1.00	0.00
ATOM	1063	N1	ADE	91	-13.725	-29.287	5.751	1.00	0.00
ATOM	1064	C2	ADE	91	-14.611	-28.783	4.894	1.00	0.00
ATOM	1065	N3	ADE	91	-15.781	-28.215	5.165	1.00	0.00
ATOM	1066	C4	ADE	91	-16.048	-28.240	6.498	1.00	0.00
ATOM	1067	C3'	ADE	91	-20.597	-26.537	6.678	1.00	0.00
ATOM	1068	C2'	ADE	91	-19.573	-27.675	6.629	1.00	0.00
ATOM	1069	O3'	ADE	91	-21.326	-26.349	5.474	1.00	0.00
ATOM	1070	P	ADE	92	-22.291	-27.478	4.837	1.00	0.00
ATOM	1071	OP1	ADE	92	-23.248	-26.806	3.931	1.00	0.00
ATOM	1072	OP2	ADE	92	-22.790	-28.344	5.927	1.00	0.00
ATOM	1073	O5'	ADE	92	-21.270	-28.338	3.933	1.00	0.00
ATOM	1074	C5'	ADE	92	-20.588	-27.751	2.841	1.00	0.00
ATOM	1075	C4'	ADE	92	-19.557	-28.727	2.263	1.00	0.00
ATOM	1076	O4'	ADE	92	-18.581	-29.055	3.239	1.00	0.00
ATOM	1077	C1'	ADE	92	-18.226	-30.413	3.091	1.00	0.00
ATOM	1078	N9	ADE	92	-17.603	-30.920	4.337	1.00	0.00
ATOM	1079	C8	ADE	92	-18.121	-30.899	5.608	1.00	0.00
ATOM	1080	N7	ADE	92	-17.319	-31.355	6.527	1.00	0.00
ATOM	1081	C5	ADE	92	-16.184	-31.715	5.813	1.00	0.00
ATOM	1082	C6	ADE	92	-14.948	-32.265	6.204	1.00	0.00
ATOM	1083	N6	ADE	92	-14.662	-32.521	7.482	1.00	0.00
ATOM	1084	N1	ADE	92	-14.021	-32.511	5.259	1.00	0.00
ATOM	1085	C2	ADE	92	-14.313	-32.233	3.991	1.00	0.00
ATOM	1086	N3	ADE	92	-15.434	-31.715	3.495	1.00	0.00
ATOM	1087	C4	ADE	92	-16.346	-31.467	4.473	1.00	0.00
ATOM	1088	C3'	ADE	92	-20.178	-30.060	1.815	1.00	0.00
ATOM	1089	C2'	ADE	92	-19.596	-31.037	2.838	1.00	0.00
ATOM	1090	O3'	ADE	92	-19.765	-30.329	0.485	1.00	0.00
ATOM	1091	P	CYT	93	-20.333	-31.577	-0.366	1.00	0.00
ATOM	1092	OP1	CYT	93	-21.403	-32.243	0.408	1.00	0.00
ATOM	1093	OP2	CYT	93	-20.595	-31.120	-1.749	1.00	0.00
ATOM	1094	O5'	CYT	93	-19.059	-32.556	-0.390	1.00	0.00
ATOM	1095	C5'	CYT	93	-17.931	-32.269	-1.197	1.00	0.00
ATOM	1096	C4'	CYT	93	-16.832	-33.294	-0.912	1.00	0.00
ATOM	1097	O4'	CYT	93	-16.531	-33.265	0.465	1.00	0.00
ATOM	1098	C1'	CYT	93	-16.067	-34.533	0.866	1.00	0.00
ATOM	1099	N1	CYT	93	-16.303	-34.685	2.323	1.00	0.00
ATOM	1100	C6	CYT	93	-17.499	-34.294	2.869	1.00	0.00
ATOM	1101	C5	CYT	93	-17.743	-34.395	4.194	1.00	0.00
ATOM	1102	C4	CYT	93	-16.684	-34.922	5.008	1.00	0.00
ATOM	1103	N4	CYT	93	-16.806	-34.966	6.335	1.00	0.00
ATOM	1104	N3	CYT	93	-15.525	-35.317	4.467	1.00	0.00
ATOM	1105	C2	CYT	93	-15.302	-35.222	3.127	1.00	0.00
ATOM	1106	O2	CYT	93	-14.232	-35.604	2.658	1.00	0.00

(465)

特開2003-135087

927

928

ATOM	1107	C3'	CYT	93	-17.269	-34.737	-1.202	1.00	0.00
ATOM	1108	C2'	CYT	93	-16.945	-35.505	0.076	1.00	0.00
ATOM	1109	O3'	CYT	93	-16.547	-35.268	-2.292	1.00	0.00
END									

【0068】

〔表3〕

表2の平均構造

HEADER 000000

REMARK	0.00517	1.61868	0.02459	0.01719	2.19528	1.61376
0.00000						

REMARK	2.50188	0.20092	0.36917	1.25714	0.67464
--------	---------	---------	---------	---------	---------

REMARK	0.01066	0.00379	0.00415	0.02078	0.00882
--------	---------	---------	---------	---------	---------

REMARK	109	106	2	1	0	0
--------	-----	-----	---	---	---	---

0

REMARK	1378	305	460	273	340
--------	------	-----	-----	-----	-----

REMARK	0.03790	0.22343	0.03726	0.03988	0.22343	0.08372
--------	---------	---------	---------	---------	---------	---------

REMARK	1.94524	0.15830
--------	---------	---------

REMARK	1	1	0	0	0	0
--------	---	---	---	---	---	---

0

ATOM	1	N	GLU	1	8.431	-21.309	32.960	14.01	-0.26
ATOM	2	HT1	GLU	1	8.736	-21.792	32.127	1.01	0.31
ATOM	3	HT2	GLU	1	8.609	-20.317	32.835	1.01	0.31
ATOM	4	HT3	GLU	1	8.941	-21.648	33.761	1.01	0.31
ATOM	5	CA	GLU	1	6.990	-21.556	33.132	12.01	0.15
ATOM	6	HA	GLU	1	6.894	-22.632	33.286	1.01	0.05
ATOM	7	CB	GLU	1	6.451	-20.841	34.386	12.01	-0.18
ATOM	8	HB1	GLU	1	7.245	-20.720	35.125	1.01	0.09
ATOM	9	HB2	GLU	1	6.099	-19.840	34.129	1.01	0.09
ATOM	10	CG	GLU	1	5.348	-21.679	35.054	12.01	-0.40
ATOM	11	HG1	GLU	1	4.821	-22.269	34.308	1.01	0.07
ATOM	12	HG2	GLU	1	5.812	-22.374	35.755	1.01	0.07
ATOM	13	CD	GLU	1	4.332	-20.836	35.820	12.01	0.71
ATOM	14	OE1	GLU	1	3.168	-21.289	35.897	16.00	-0.72
ATOM	15	OE2	GLU	1	4.725	-19.745	36.283	16.00	-0.72
ATOM	16	C	GLU	1	6.240	-21.208	31.836	12.01	0.62
ATOM	17	O	GLU	1	6.783	-21.437	30.756	16.00	-0.50
ATOM	18	N	LYS	2	5.018	-20.661	31.925	14.01	-0.46
ATOM	19	HN	LYS	2	4.638	-20.496	32.844	1.01	0.25
ATOM	20	CA	LYS	2	4.187	-20.282	30.783	12.01	0.03
ATOM	21	HA	LYS	2	4.202	-21.079	30.038	1.01	0.05
ATOM	22	CB	LYS	2	2.723	-20.068	31.223	12.01	-0.10
ATOM	23	HB1	LYS	2	2.700	-19.381	32.071	1.01	0.04
ATOM	24	HB2	LYS	2	2.187	-19.596	30.397	1.01	0.04
ATOM	25	CG	LYS	2	1.924	-21.334	31.579	12.01	-0.16
ATOM	26	HG1	LYS	2	0.921	-21.014	31.862	1.01	0.12

929

930

ATOM	27	HG2	LYS	2	1.844	-21.981	30.704	1.01	0.12
ATOM	28	CD	LYS	2	2.552	-22.114	32.737	12.01	-0.18
ATOM	29	HD1	LYS	2	3.342	-22.753	32.340	1.01	0.12
ATOM	30	HD2	LYS	2	2.982	-21.394	33.427	1.01	0.12
ATOM	31	CE	LYS	2	1.559	-22.974	33.527	12.01	-0.04
ATOM	32	HE1	LYS	2	0.798	-23.387	32.863	1.01	0.10
ATOM	33	HE2	LYS	2	2.107	-23.799	33.985	1.01	0.10
ATOM	34	NZ	LYS	2	0.933	-22.204	34.621	14.01	-0.14
ATOM	35	HZ1	LYS	2	0.325	-22.799	35.164	1.01	0.29
ATOM	36	HZ2	LYS	2	1.666	-21.841	35.229	1.01	0.29
ATOM	37	HZ3	LYS	2	0.405	-21.428	34.249	1.01	0.29
ATOM	38	C	LYS	2	4.747	-19.007	30.143	12.01	0.62
ATOM	39	O	LYS	2	4.169	-17.926	30.276	16.00	-0.50
ATOM	40	N	HIS	3	5.878	-19.125	29.440	14.01	-0.46
ATOM	41	HN	HIS	3	6.304	-20.042	29.375	1.01	0.25
ATOM	42	CA	HIS	3	6.547	-18.010	28.781	12.01	0.03
ATOM	43	HA	HIS	3	6.475	-17.123	29.412	1.01	0.05
ATOM	44	CB	HIS	3	8.040	-18.324	28.628	12.01	-0.10
ATOM	45	HB1	HIS	3	8.158	-19.206	27.996	1.01	0.04
ATOM	46	HB2	HIS	3	8.532	-17.481	28.141	1.01	0.04
ATOM	47	CG	HIS	3	8.749	-18.570	29.936	12.01	-0.03
ATOM	48	ND1	HIS	3	10.052	-19.041	29.992	14.01	-0.15
ATOM	49	HD1	HIS	3	10.644	-19.260	29.203	1.01	0.23
ATOM	50	CE1	HIS	3	10.383	-19.151	31.290	12.01	0.24
ATOM	51	HE1	HIS	3	11.346	-19.498	31.634	1.01	0.04
ATOM	52	NE2	HIS	3	9.392	-18.789	32.109	14.01	-0.50
ATOM	53	CD2	HIS	3	8.363	-18.419	31.248	12.01	0.20
ATOM	54	HD2	HIS	3	7.396	-18.066	31.574	1.01	0.02
ATOM	55	C	HIS	3	5.883	-17.673	27.442	12.01	0.62
ATOM	56	O	HIS	3	6.554	-17.618	26.415	16.00	-0.50
ATOM	57	N	ARG	4	4.563	-17.442	27.470	14.01	-0.46
ATOM	58	HN	ARG	4	4.111	-17.519	28.371	1.01	0.25
ATOM	59	CA	ARG	4	3.702	-17.090	26.345	12.01	0.03
ATOM	60	HA	ARG	4	2.721	-16.866	26.768	1.01	0.05
ATOM	61	CB	ARG	4	4.162	-15.814	25.614	12.01	-0.08
ATOM	62	HB1	ARG	4	5.205	-15.874	25.307	1.01	0.06
ATOM	63	HB2	ARG	4	3.566	-15.746	24.704	1.01	0.06
ATOM	64	CG	ARG	4	3.907	-14.498	26.372	12.01	-0.10
ATOM	65	HG1	ARG	4	3.997	-13.701	25.631	1.01	0.07
ATOM	66	HG2	ARG	4	2.886	-14.473	26.757	1.01	0.07
ATOM	67	CD	ARG	4	4.903	-14.163	27.492	12.01	-0.23
ATOM	68	HD1	ARG	4	5.915	-14.417	27.169	1.01	0.13
ATOM	69	HD2	ARG	4	4.847	-13.085	27.656	1.01	0.13
ATOM	70	NE	ARG	4	4.585	-14.844	28.756	14.01	-0.32
ATOM	71	HE	ARG	4	3.877	-15.562	28.714	1.01	0.27
ATOM	72	CZ	ARG	4	5.172	-14.595	29.939	12.01	0.76
ATOM	73	NH1	ARG	4	6.053	-13.594	30.065	14.01	-0.62
ATOM	74	HH11	ARG	4	6.496	-13.400	30.952	1.01	0.36
ATOM	75	HH12	ARG	4	6.279	-13.021	29.265	1.01	0.36
ATOM	76	NH2	ARG	4	4.882	-15.362	30.997	14.01	-0.62

931				932			
ATOM	77	HH21	ARG	4	5.280	-15.171	31.904 1.01 0.36
ATOM	78	HH22	ARG	4	4.322	-16.202	30.872 1.01 0.36
ATOM	79	C	ARG	4	3.482	-18.268	25.386 12.01 0.62
ATOM	80	O	ARG	4	2.334	-18.589	25.087 16.00 -0.50
ATOM	81	N	ALA	5	4.564	-18.900	24.915 14.01 -0.46
ATOM	82	HN	ALA	5	5.470	-18.565	25.214 1.01 0.25
ATOM	83	CA	ALA	5	4.552	-20.040	24.005 12.01 0.03
ATOM	84	HA	ALA	5	5.591	-20.295	23.791 1.01 0.05
ATOM	85	CB	ALA	5	3.920	-21.266	24.677 12.01 -0.10
ATOM	86	HB1	ALA	5	2.864	-21.098	24.888 1.01 0.04
ATOM	87	HB2	ALA	5	4.012	-22.130	24.018 1.01 0.04
ATOM	88	HB3	ALA	5	4.440	-21.481	25.611 1.01 0.04
ATOM	89	C	ALA	5	3.888	-19.678	22.675 12.01 0.62
ATOM	90	O	ALA	5	2.850	-20.232	22.320 16.00 -0.50
ATOM	91	N	ARG	6	4.504	-18.740	21.947 14.01 -0.46
ATOM	92	HN	ARG	6	5.356	-18.330	22.303 1.01 0.25
ATOM	93	CA	ARG	6	4.042	-18.253	20.655 12.01 0.03
ATOM	94	HA	ARG	6	3.289	-18.925	20.241 1.01 0.05
ATOM	95	CB	ARG	6	3.416	-16.858	20.806 12.01 -0.08
ATOM	96	HB1	ARG	6	4.192	-16.130	21.048 1.01 0.06
ATOM	97	HB2	ARG	6	2.957	-16.575	19.858 1.01 0.06
ATOM	98	CG	ARG	6	2.357	-16.834	21.914 12.01 -0.10
ATOM	99	HG1	ARG	6	1.637	-17.632	21.730 1.01 0.07
ATOM	100	HG2	ARG	6	2.844	-17.010	22.871 1.01 0.07
ATOM	101	CD	ARG	6	1.649	-15.477	21.976 12.01 -0.23
ATOM	102	HD1	ARG	6	2.395	-14.693	21.836 1.01 0.13
ATOM	103	HD2	ARG	6	0.926	-15.389	21.167 1.01 0.13
ATOM	104	NE	ARG	6	1.007	-15.237	23.279 14.01 -0.32
ATOM	105	HE	ARG	6	1.318	-14.407	23.761 1.01 0.27
ATOM	106	CZ	ARG	6	0.089	-16.007	23.891 12.01 0.76
ATOM	107	NH1	ARG	6	-0.287	-15.703	25.140 14.01 -0.62
ATOM	108	HH11	ARG	6	-0.979	-16.265	25.614 1.01 0.36
ATOM	109	HH12	ARG	6	0.094	-14.893	25.605 1.01 0.36
ATOM	110	NH2	ARG	6	-0.455	-17.072	23.294 14.01 -0.62
ATOM	111	HH21	ARG	6	-1.135	-17.648	23.764 1.01 0.36
ATOM	112	HH22	ARG	6	-0.301	-17.234	22.299 1.01 0.36
ATOM	113	C	ARG	6	5.253	-18.211	19.726 12.01 0.62
ATOM	114	O	ARG	6	6.227	-17.525	20.029 16.00 -0.50
ATOM	115	N	LYS	7	5.201	-18.952	18.614 14.01 -0.46
ATOM	116	HN	LYS	7	4.376	-19.499	18.423 1.01 0.25
ATOM	117	CA	LYS	7	6.288	-19.006	17.649 12.01 0.03
ATOM	118	HA	LYS	7	6.676	-17.997	17.502 1.01 0.05
ATOM	119	CB	LYS	7	7.444	-19.873	18.179 12.01 -0.10
ATOM	120	HB1	LYS	7	7.739	-19.522	19.169 1.01 0.04
ATOM	121	HB2	LYS	7	7.122	-20.912	18.264 1.01 0.04
ATOM	122	CG	LYS	7	8.662	-19.774	17.250 12.01 -0.16
ATOM	123	HG1	LYS	7	8.986	-18.732	17.207 1.01 0.12
ATOM	124	HG2	LYS	7	8.377	-20.098	16.250 1.01 0.12
ATOM	125	CD	LYS	7	9.812	-20.647	17.766 12.01 -0.18
ATOM	126	HD1	LYS	7	10.058	-20.339	18.784 1.01 0.12

933

934

ATOM	127	HD2	LYS	7	9.494	-21.691	17.790	1.01	0.12
ATOM	128	CE	LYS	7	11.070	-20.503	16.898	12.01	-0.04
ATOM	129	HE1	LYS	7	11.394	-19.460	16.901	1.01	0.10
ATOM	130	HE2	LYS	7	11.865	-21.112	17.331	1.01	0.10
ATOM	131	NZ	LYS	7	10.846	-20.936	15.505	14.01	-0.14
ATOM	132	HZ1	LYS	7	10.539	-21.899	15.490	1.01	0.29
ATOM	133	HZ2	LYS	7	10.142	-20.355	15.073	1.01	0.29
ATOM	134	HZ3	LYS	7	11.706	-20.854	14.981	1.01	0.29
ATOM	135	C	LYS	7	5.760	-19.515	16.308	12.01	0.62
ATOM	136	O	LYS	7	5.839	-20.709	16.020	16.00	-0.50
ATOM	137	N	ARG	8	5.238	-18.606	15.482	14.01	-0.46
ATOM	138	HN	ARG	8	5.213	-17.634	15.793	1.01	0.25
ATOM	139	CA	ARG	8	4.736	-18.931	14.152	12.01	0.03
ATOM	140	HA	ARG	8	3.956	-19.690	14.227	1.01	0.05
ATOM	141	CB	ARG	8	4.169	-17.655	13.516	12.01	-0.08
ATOM	142	HB1	ARG	8	4.872	-16.841	13.699	1.01	0.06
ATOM	143	HB2	ARG	8	4.085	-17.765	12.440	1.01	0.06
ATOM	144	CG	ARG	8	2.803	-17.272	14.097	12.01	-0.10
ATOM	145	HC1	ARG	8	2.893	-17.276	15.180	1.01	0.07
ATOM	146	HC2	ARG	8	2.564	-16.258	13.775	1.01	0.07
ATOM	147	CD	ARG	8	1.655	-18.199	13.665	12.01	-0.23
ATOM	148	HD1	ARG	8	0.933	-17.601	13.108	1.01	0.13
ATOM	149	HD2	ARG	8	2.028	-18.980	13.003	1.01	0.13
ATOM	150	NE	ARG	8	1.036	-18.840	14.838	14.01	-0.32
ATOM	151	HE	ARG	8	1.689	-19.230	15.502	1.01	0.27
ATOM	152	CZ	ARG	8	-0.271	-18.875	15.152	12.01	0.76
ATOM	153	NH1	ARG	8	-0.637	-19.345	16.353	14.01	-0.62
ATOM	154	HH11	ARG	8	-1.612	-19.381	16.616	1.01	0.36
ATOM	155	HH12	ARG	8	0.057	-19.660	17.015	1.01	0.36
ATOM	156	NH2	ARG	8	-1.215	-18.456	14.301	14.01	-0.62
ATOM	157	HH21	ARG	8	-2.178	-18.387	14.595	1.01	0.36
ATOM	158	HH22	ARG	8	-1.000	-18.226	13.337	1.01	0.36
ATOM	159	C	ARG	8	5.898	-19.476	13.316	12.01	0.62
ATOM	160	O	ARG	8	6.904	-18.785	13.151	16.00	-0.50
ATOM	161	N	GLN	9	5.787	-20.703	12.791	14.01	-0.46
ATOM	162	HN	GLN	9	4.948	-21.261	12.942	1.01	0.25
ATOM	163	CA	GLN	9	6.857	-21.287	11.995	12.01	0.03
ATOM	164	HA	GLN	9	7.821	-21.052	12.450	1.01	0.05
ATOM	165	CB	GLN	9	6.749	-22.819	11.965	12.01	-0.10
ATOM	166	HB1	GLN	9	5.772	-23.110	11.593	1.01	0.04
ATOM	167	HB2	GLN	9	7.510	-23.208	11.285	1.01	0.04
ATOM	168	CG	GLN	9	6.938	-23.455	13.347	12.01	-0.10
ATOM	169	HC1	GLN	9	7.934	-23.221	13.724	1.01	0.06
ATOM	170	HC2	GLN	9	6.198	-23.048	14.038	1.01	0.06
ATOM	171	CD	GLN	9	6.768	-24.973	13.297	12.01	0.68
ATOM	172	OE1	GLN	9	5.951	-25.537	14.019	16.00	-0.47
ATOM	173	NE2	GLN	9	7.549	-25.653	12.455	14.01	-0.87
ATOM	174	HE21	GLN	9	7.458	-26.656	12.405	1.01	0.34
ATOM	175	HE22	GLN	9	8.214	-25.170	11.870	1.01	0.34
ATOM	176	C	GLN	9	6.833	-20.696	10.583	12.01	0.62

	935				936			
ATOM	177	O	GLN	9	6.179	-21.237	9.694	16.00 -0.50
ATOM	178	N	ALA	10	7.557	-19.593	10.372	14.01 -0.46
ATOM	179	HN	ALA	10	8.070	-19.198	11.149	1.01 0.25
ATOM	180	CA	ALA	10	7.659	-18.934	9.076	12.01 0.03
ATOM	181	HA	ALA	10	6.671	-18.609	8.755	1.01 0.05
ATOM	182	CB	ALA	10	8.541	-17.690	9.204	12.01 -0.10
ATOM	183	HB1	ALA	10	9.541	-17.970	9.539	1.01 0.04
ATOM	184	HB2	ALA	10	8.615	-17.194	8.236	1.01 0.04
ATOM	185	HB3	ALA	10	8.102	-16.999	9.925	1.01 0.04
ATOM	186	C	ALA	10	8.246	-19.911	8.055	12.01 0.62
ATOM	187	O	ALA	10	9.291	-20.508	8.312	16.00 -0.50
ATOM	188	N	TRP	11	7.583	-20.086	6.909	14.01 -0.46
ATOM	189	HN	TRP	11	6.721	-19.569	6.738	1.01 0.25
ATOM	190	CA	TRP	11	8.054	-20.985	5.866	12.01 0.03
ATOM	191	HA	TRP	11	8.397	-21.920	6.312	1.01 0.05
ATOM	192	CB	TRP	11	6.920	-21.309	4.892	12.01 -0.10
ATOM	193	HB1	TRP	11	6.493	-20.367	4.551	1.01 0.04
ATOM	194	HB2	TRP	11	7.359	-21.803	4.026	1.01 0.04
ATOM	195	CG	TRP	11	5.799	-22.190	5.362	12.01 -0.14
ATOM	196	CD1	TRP	11	4.910	-21.906	6.340	12.01 0.04
ATOM	197	HD1	TRP	11	4.890	-21.008	6.933	1.01 0.09
ATOM	198	NE1	TRP	11	4.006	-22.937	6.478	14.01 -0.35
ATOM	199	HE1	TRP	11	3.241	-22.961	7.138	1.01 0.27
ATOM	200	CE2	TRP	11	4.276	-23.954	5.589	12.01 0.15
ATOM	201	CZ2	TRP	11	3.661	-25.188	5.337	12.01 -0.17
ATOM	202	HZ2	TRP	11	2.794	-25.495	5.900	1.01 0.08
ATOM	203	CH2	TRP	11	4.184	-26.022	4.340	12.01 -0.08
ATOM	204	HH2	TRP	11	3.741	-26.987	4.166	1.01 0.07
ATOM	205	CZ3	TRP	11	5.309	-25.615	3.605	12.01 -0.07
ATOM	206	HZ3	TRP	11	5.708	-26.260	2.836	1.01 0.06
ATOM	207	CE3	TRP	11	5.918	-24.373	3.865	12.01 -0.17
ATOM	208	HE3	TRP	11	6.779	-24.076	3.287	1.01 0.09
ATOM	209	CD2	TRP	11	5.420	-23.508	4.864	12.01 0.15
ATOM	210	C	TRP	11	9.217	-20.344	5.101	12.01 0.62
ATOM	211	O	TRP	11	9.340	-19.121	5.046	16.00 -0.50
ATOM	212	N	LEU	12	10.063	-21.189	4.503	14.01 -0.46
ATOM	213	HN	LEU	12	9.882	-22.180	4.588	1.01 0.25
ATOM	214	CA	LEU	12	11.224	-20.822	3.701	12.01 0.03
ATOM	215	HA	LEU	12	11.108	-19.818	3.294	1.01 0.05
ATOM	216	CB	LEU	12	12.508	-20.926	4.543	12.01 -0.06
ATOM	217	HB1	LEU	12	12.579	-21.947	4.921	1.01 0.03
ATOM	218	HB2	LEU	12	13.372	-20.741	3.903	1.01 0.03
ATOM	219	CG	LEU	12	12.578	-19.956	5.735	12.01 -0.01
ATOM	220	HC	LEU	12	11.695	-20.070	6.363	1.01 0.03
ATOM	221	CD1	LEU	12	13.805	-20.304	6.586	12.01 -0.11
ATOM	222	HD11	LEU	12	13.728	-21.331	6.944	1.01 0.03
ATOM	223	HD12	LEU	12	14.715	-20.199	5.994	1.01 0.03
ATOM	224	HD13	LEU	12	13.859	-19.637	7.447	1.01 0.03
ATOM	225	CD2	LEU	12	12.689	-18.496	5.277	12.01 -0.11
ATOM	226	HD21	LEU	12	11.797	-18.195	4.729	1.01 0.03

(470)

特開2003-135087

937

938

ATOM	227	HD22	LEU	12	12.790	-17.848	6.148	1.01	0.03
ATOM	228	HD23	LEU	12	13.562	-18.369	4.636	1.01	0.03
ATOM	229	C	LEU	12	11.292	-21.802	2.529	12.01	0.62
ATOM	230	O	LEU	12	10.537	-22.769	2.504	16.00	-0.50
ATOM	231	N	TRP	13	12.205	-21.579	1.571	14.01	-0.46
ATOM	232	HN	TRP	13	12.799	-20.775	1.667	1.01	0.25
ATOM	233	CA	TRP	13	12.393	-22.442	0.402	12.01	0.03
ATOM	234	HA	TRP	13	11.489	-22.415	-0.201	1.01	0.05
ATOM	235	CB	TRP	13	13.519	-21.969	-0.509	12.01	-0.10
ATOM	236	HB1	TRP	13	13.775	-22.740	-1.231	1.01	0.04
ATOM	237	HB2	TRP	13	13.131	-21.125	-1.081	1.01	0.04
ATOM	238	CG	TRP	13	14.760	-21.536	0.189	12.01	-0.14
ATOM	239	CD1	TRP	13	15.076	-20.243	0.300	12.01	0.04
ATOM	240	HD1	TRP	13	14.418	-19.513	-0.129	1.01	0.09
ATOM	241	NE1	TRP	13	16.260	-20.090	0.987	14.01	-0.35
ATOM	242	HE1	TRP	13	16.713	-19.213	1.202	1.01	0.27
ATOM	243	CE2	TRP	13	16.769	-21.321	1.358	12.01	0.15
ATOM	244	CZ2	TRP	13	17.921	-21.702	2.061	12.01	-0.17
ATOM	245	HZ2	TRP	13	18.613	-20.956	2.424	1.01	0.08
ATOM	246	CH2	TRP	13	18.166	-23.066	2.287	12.01	-0.08
ATOM	247	HH2	TRP	13	19.047	-23.374	2.830	1.01	0.07
ATOM	248	CZ3	TRP	13	17.259	-24.028	1.809	12.01	-0.07
ATOM	249	HZ3	TRP	13	17.450	-25.076	1.986	1.01	0.06
ATOM	250	CE3	TRP	13	16.106	-23.636	1.105	12.01	-0.17
ATOM	251	HE3	TRP	13	15.430	-24.396	0.753	1.01	0.09
ATOM	252	CD2	TRP	13	15.826	-22.273	0.860	12.01	0.15
ATOM	253	C	TRP	13	12.642	-23.891	0.763	12.01	0.62
ATOM	254	O	TRP	13	12.508	-24.746	-0.098	16.00	-0.50
ATOM	255	N	GLU	14	13.002	-24.208	2.000	14.01	-0.46
ATOM	256	HN	GLU	14	13.115	-23.481	2.691	1.01	0.25
ATOM	257	CA	GLU	14	13.176	-25.604	2.344	12.01	0.03
ATOM	258	HA	GLU	14	13.857	-26.052	1.624	1.01	0.05
ATOM	259	CB	GLU	14	13.699	-25.698	3.787	12.01	-0.18
ATOM	260	HB1	GLU	14	14.702	-25.271	3.829	1.01	0.09
ATOM	261	HB2	GLU	14	13.053	-25.115	4.446	1.01	0.09
ATOM	262	CG	GLU	14	13.756	-27.127	4.337	12.01	-0.40
ATOM	263	HG1	GLU	14	12.777	-27.601	4.271	1.01	0.07
ATOM	264	HG2	GLU	14	14.471	-27.715	3.759	1.01	0.07
ATOM	265	CD	GLU	14	14.182	-27.120	5.802	12.01	0.71
ATOM	266	OE1	GLU	14	13.289	-27.304	6.660	16.00	-0.72
ATOM	267	OE2	GLU	14	15.390	-26.905	6.036	16.00	-0.72
ATOM	268	C	GLU	14	11.823	-26.289	2.146	12.01	0.62
ATOM	269	O	GLU	14	11.669	-27.176	1.303	16.00	-0.50
ATOM	270	N	GLU	15	10.839	-25.840	2.920	14.01	-0.46
ATOM	271	HN	GLU	15	11.040	-25.092	3.570	1.01	0.25
ATOM	272	CA	GLU	15	9.499	-26.381	2.878	12.01	0.03
ATOM	273	HA	GLU	15	9.572	-27.468	2.829	1.01	0.05
ATOM	274	CB	GLU	15	8.785	-26.038	4.184	12.01	-0.18
ATOM	275	HB1	GLU	15	8.696	-24.956	4.288	1.01	0.09
ATOM	276	HB2	GLU	15	7.792	-26.485	4.169	1.01	0.09

(471)

特開2003-135087

939

940

ATOM	277	CG	GLU	15	9.551	-26.601	5.388	12.01	-0.40
ATOM	278	HC1	GLU	15	9.769	-27.657	5.232	1.01	0.07
ATOM	279	HC2	GLU	15	10.492	-26.069	5.522	1.01	0.07
ATOM	280	CD	GLU	15	8.739	-26.444	6.660	12.01	0.71
ATOM	281	OE1	GLU	15	8.275	-25.311	6.901	16.00	-0.72
ATOM	282	OE2	GLU	15	8.590	-27.455	7.382	16.00	-0.72
ATOM	283	C	GLU	15	8.741	-25.920	1.632	12.01	0.62
ATOM	284	O	GLU	15	8.029	-26.715	1.033	16.00	-0.50
ATOM	285	N	ASP	16	8.884	-24.657	1.223	14.01	-0.46
ATOM	286	HN	ASP	16	9.482	-24.041	1.750	1.01	0.25
ATOM	287	CA	ASP	16	8.205	-24.122	0.050	12.01	0.03
ATOM	288	HA	ASP	16	7.144	-24.367	0.122	1.01	0.05
ATOM	289	CB	ASP	16	8.336	-22.597	-0.030	12.01	-0.40
ATOM	290	HB1	ASP	16	9.381	-22.310	-0.009	1.01	0.07
ATOM	291	HB2	ASP	16	7.908	-22.258	-0.974	1.01	0.07
ATOM	292	CG	ASP	16	7.602	-21.872	1.081	12.01	0.71
ATOM	293	OD1	ASP	16	6.467	-22.288	1.390	16.00	-0.72
ATOM	294	OD2	ASP	16	8.158	-20.867	1.574	16.00	-0.72
ATOM	295	C	ASP	16	8.725	-24.733	-1.247	12.01	0.62
ATOM	296	O	ASP	16	7.924	-25.027	-2.133	16.00	-0.50
ATOM	297	N	LYS	17	10.045	-24.925	-1.392	14.01	-0.46
ATOM	298	HN	LYS	17	10.705	-24.695	-0.651	1.01	0.25
ATOM	299	CA	LYS	17	10.572	-25.496	-2.625	12.01	0.03
ATOM	300	HA	LYS	17	10.098	-24.987	-3.467	1.01	0.05
ATOM	301	CB	LYS	17	12.083	-25.244	-2.745	12.01	-0.10
ATOM	302	HB1	LYS	17	12.326	-24.210	-2.436	1.01	0.04
ATOM	303	HB2	LYS	17	12.582	-25.969	-2.107	1.01	0.04
ATOM	304	CG	LYS	17	12.609	-25.441	-4.169	12.01	-0.16
ATOM	305	HC1	LYS	17	12.121	-26.303	-4.626	1.01	0.12
ATOM	306	HC2	LYS	17	12.367	-24.556	-4.760	1.01	0.12
ATOM	307	CD	LYS	17	14.125	-25.690	-4.198	12.01	-0.18
ATOM	308	HD1	LYS	17	14.337	-26.696	-3.829	1.01	0.12
ATOM	309	HD2	LYS	17	14.436	-25.651	-5.244	1.01	0.12
ATOM	310	CE	LYS	17	14.960	-24.665	-3.411	12.01	-0.04
ATOM	311	HE1	LYS	17	15.978	-24.686	-3.804	1.01	0.10
ATOM	312	HE2	LYS	17	14.557	-23.662	-3.560	1.01	0.10
ATOM	313	NZ	LYS	17	15.041	-24.974	-1.967	14.01	-0.14
ATOM	314	HZ1	LYS	17	15.672	-24.324	-1.520	1.01	0.29
ATOM	315	HZ2	LYS	17	14.133	-24.894	-1.525	1.01	0.29
ATOM	316	HZ3	LYS	17	15.388	-25.913	-1.833	1.01	0.29
ATOM	317	C	LYS	17	10.176	-26.977	-2.657	12.01	0.62
ATOM	318	O	LYS	17	9.744	-27.480	-3.696	16.00	-0.50
ATOM	319	N	ASN	18	10.291	-27.669	-1.511	14.01	-0.46
ATOM	320	HN	ASN	18	10.646	-27.216	-0.670	1.01	0.25
ATOM	321	CA	ASN	18	9.899	-29.068	-1.398	12.01	0.03
ATOM	322	HA	ASN	18	10.494	-29.649	-2.105	1.01	0.05
ATOM	323	CB	ASN	18	10.209	-29.552	0.023	12.01	-0.09
ATOM	324	HB1	ASN	18	11.273	-29.421	0.214	1.01	0.04
ATOM	325	HB2	ASN	18	9.645	-28.955	0.740	1.01	0.04
ATOM	326	CG	ASN	18	9.898	-31.029	0.228	12.01	0.68

941				942			
ATOM	327	OD1 ASN	18	10.076	-31.833	-0.683	16.00 -0.47
ATOM	328	ND2 ASN	18	9.455	-31.390	1.433	14.01 -0.87
ATOM	329	HD21 ASN	18	9.255	-32.358	1.637	1.01 0.34
ATOM	330	HD22 ASN	18	9.326	-30.704	2.164	1.01 0.34
ATOM	331	C ASN	18	8.411	-29.226	-1.750	12.01 0.62
ATOM	332	O ASN	18	8.043	-30.093	-2.542	16.00 -0.50
ATOM	333	N LEU	19	7.559	-28.370	-1.174	14.01 -0.46
ATOM	334	HN LEU	19	7.931	-27.678	-0.538	1.01 0.25
ATOM	335	CA LEU	19	6.121	-28.353	-1.404	12.01 0.03
ATOM	336	HA LEU	19	5.732	-29.334	-1.131	1.01 0.05
ATOM	337	CB LEU	19	5.454	-27.292	-0.514	12.01 -0.06
ATOM	338	HB1 LEU	19	5.624	-27.557	0.529	1.01 0.03
ATOM	339	HB2 LEU	19	5.919	-26.325	-0.707	1.01 0.03
ATOM	340	CG LEU	19	3.939	-27.149	-0.736	12.01 -0.01
ATOM	341	HG LEU	19	3.743	-26.813	-1.754	1.01 0.03
ATOM	342	CD1 LEU	19	3.214	-28.479	-0.513	12.01 -0.11
ATOM	343	HD11 LEU	19	3.552	-28.925	0.418	1.01 0.03
ATOM	344	HD12 LEU	19	2.138	-28.314	-0.465	1.01 0.03
ATOM	345	HD13 LEU	19	3.422	-29.166	-1.331	1.01 0.03
ATOM	346	CD2 LEU	19	3.386	-26.092	0.228	12.01 -0.11
ATOM	347	HD21 LEU	19	3.542	-26.407	1.260	1.01 0.03
ATOM	348	HD22 LEU	19	3.893	-25.141	0.066	1.01 0.03
ATOM	349	HD23 LEU	19	2.318	-25.955	0.057	1.01 0.03
ATOM	350	C LEU	19	5.828	-28.108	-2.881	12.01 0.62
ATOM	351	O LEU	19	5.045	-28.845	-3.471	16.00 -0.50
ATOM	352	N ARG	20	6.458	-27.091	-3.483	14.01 -0.46
ATOM	353	HN ARG	20	7.094	-26.521	-2.940	1.01 0.25
ATOM	354	CA ARG	20	6.286	-26.767	-4.894	12.01 0.03
ATOM	355	HA ARG	20	5.253	-26.462	-5.056	1.01 0.05
ATOM	356	CB ARG	20	7.206	-25.598	-5.279	12.01 -0.08
ATOM	357	HB1 ARG	20	6.889	-24.713	-4.725	1.01 0.06
ATOM	358	HB2 ARG	20	8.236	-25.830	-5.008	1.01 0.06
ATOM	359	CG ARG	20	7.150	-25.304	-6.783	12.01 -0.10
ATOM	360	HG1 ARG	20	7.613	-26.130	-7.326	1.01 0.07
ATOM	361	HG2 ARG	20	6.109	-25.209	-7.092	1.01 0.07
ATOM	362	CD ARG	20	7.900	-24.013	-7.126	12.01 -0.23
ATOM	363	HD1 ARG	20	7.416	-23.189	-6.604	1.01 0.13
ATOM	364	HD2 ARG	20	8.932	-24.096	-6.780	1.01 0.13
ATOM	365	NE ARG	20	7.899	-23.780	-8.579	14.01 -0.32
ATOM	366	HE ARG	20	7.738	-24.591	-9.158	1.01 0.27
ATOM	367	CZ ARG	20	8.118	-22.598	-9.182	12.01 0.76
ATOM	368	NH1 ARG	20	8.096	-22.526	-10.519	14.01 -0.62
ATOM	369	HH11 ARG	20	8.253	-21.646	-10.990	1.01 0.36
ATOM	370	HH12 ARG	20	7.944	-23.355	-11.076	1.01 0.36
ATOM	371	NH2 ARG	20	8.356	-21.493	-8.463	14.01 -0.62
ATOM	372	HH21 ARG	20	8.513	-20.604	-8.914	1.01 0.36
ATOM	373	HH22 ARG	20	8.387	-21.544	-7.455	1.01 0.36
ATOM	374	C ARG	20	6.541	-28.012	-5.743	12.01 0.62
ATOM	375	O ARG	20	5.746	-28.330	-6.628	16.00 -0.50
ATOM	376	N SER	21	7.640	-28.720	-5.454	14.01 -0.46

943				944				
ATOM	377	HN	SER	21	8.247	-28.399	-4.707	1.01 0.25
ATOM	378	CA	SER	21	7.986	-29.948	-6.153	12.01 0.03
ATOM	379	HA	SER	21	8.102	-29.712	-7.212	1.01 0.05
ATOM	380	CB	SER	21	9.323	-30.489	-5.627	12.01 0.02
ATOM	381	HB1	SER	21	10.054	-29.680	-5.586	1.01 0.12
ATOM	382	HB2	SER	21	9.204	-30.903	-4.626	1.01 0.12
ATOM	383	OG	SER	21	9.818	-31.492	-6.490	16.00 -0.55
ATOM	384	HG	SER	21	9.967	-31.092	-7.352	1.01 0.31
ATOM	385	C	SER	21	6.845	-30.958	-5.988	12.01 0.62
ATOM	386	O	SER	21	6.360	-31.511	-6.973	16.00 -0.50
ATOM	387	N	GLY	22	6.411	-31.180	-4.741	14.01 -0.46
ATOM	388	HN	GLY	22	6.855	-30.682	-3.978	1.01 0.25
ATOM	389	CA	GLY	22	5.328	-32.088	-4.397	12.01 0.03
ATOM	390	HA1	GLY	22	5.652	-33.114	-4.572	1.01 0.03
ATOM	391	HA2	GLY	22	5.104	-31.967	-3.338	1.01 0.03
ATOM	392	C	GLY	22	4.056	-31.812	-5.200	12.01 0.62
ATOM	393	O	GLY	22	3.505	-32.729	-5.803	16.00 -0.50
ATOM	394	N	VAL	23	3.592	-30.557	-5.213	14.01 -0.46
ATOM	395	HN	VAL	23	4.100	-29.854	-4.695	1.01 0.25
ATOM	396	CA	VAL	23	2.397	-30.137	-5.933	12.01 0.03
ATOM	397	HA	VAL	23	1.552	-30.729	-5.579	1.01 0.05
ATOM	398	CB	VAL	23	2.096	-28.653	-5.652	12.01 -0.01
ATOM	399	HB	VAL	23	2.993	-28.055	-5.821	1.01 0.02
ATOM	400	CG1	VAL	23	0.983	-28.130	-6.571	12.01 -0.09
ATOM	401	HG11	VAL	23	0.137	-28.815	-6.553	1.01 0.03
ATOM	402	HG12	VAL	23	0.645	-27.152	-6.234	1.01 0.03
ATOM	403	HG13	VAL	23	1.344	-28.034	-7.595	1.01 0.03
ATOM	404	CG2	VAL	23	1.647	-28.469	-4.198	12.01 -0.09
ATOM	405	HG21	VAL	23	1.465	-27.413	-4.000	1.01 0.03
ATOM	406	HG22	VAL	23	0.728	-29.029	-4.021	1.01 0.03
ATOM	407	HG23	VAL	23	2.416	-28.822	-3.514	1.01 0.03
ATOM	408	C	VAL	23	2.554	-30.407	-7.427	12.01 0.62
ATOM	409	O	VAL	23	1.668	-30.987	-8.046	16.00 -0.50
ATOM	410	N	ARG	24	3.674	-29.988	-8.020	14.01 -0.46
ATOM	411	HN	ARG	24	4.381	-29.512	-7.471	1.01 0.25
ATOM	412	CA	ARG	24	3.912	-30.196	-9.442	12.01 0.03
ATOM	413	HA	ARG	24	3.054	-29.804	-9.992	1.01 0.05
ATOM	414	CB	ARG	24	5.144	-29.392	-9.876	12.01 -0.08
ATOM	415	HB1	ARG	24	5.922	-29.467	-9.116	1.01 0.06
ATOM	416	HB2	ARG	24	5.531	-29.787	-10.817	1.01 0.06
ATOM	417	CG	ARG	24	4.729	-27.929	-10.097	12.01 -0.10
ATOM	418	HG1	ARG	24	4.164	-27.882	-11.030	1.01 0.07
ATOM	419	HG2	ARG	24	4.079	-27.594	-9.286	1.01 0.07
ATOM	420	CD	ARG	24	5.933	-26.985	-10.165	12.01 -0.23
ATOM	421	HD1	ARG	24	6.161	-26.664	-9.149	1.01 0.13
ATOM	422	HD2	ARG	24	6.809	-27.513	-10.542	1.01 0.13
ATOM	423	NE	ARG	24	5.638	-25.800	-10.991	14.01 -0.32
ATOM	424	HE	ARG	24	5.225	-25.005	-10.524	1.01 0.27
ATOM	425	CZ	ARG	24	5.835	-25.732	-12.320	12.01 0.76
ATOM	426	NH1	ARG	24	5.571	-24.601	-12.985	14.01 -0.62

945

946

ATOM	427	HH11	ARG	24	5.815	-24.552	-13.975	1.01	0.36
ATOM	428	HH12	ARG	24	5.117	-23.807	-12.541	1.01	0.36
ATOM	429	NH2	ARG	24	6.297	-26.798	-12.986	14.01	-0.62
ATOM	430	HH21	ARG	24	6.402	-26.774	-13.999	1.01	0.36
ATOM	431	HH22	ARG	24	6.453	-27.674	-12.512	1.01	0.36
ATOM	432	C	ARG	24	3.998	-31.685	-9.805	12.01	0.62
ATOM	433	O	ARG	24	3.636	-32.059	-10.918	16.00	-0.50
ATOM	434	N	LYS	25	4.465	-32.536	-8.884	14.01	-0.46
ATOM	435	HN	LYS	25	4.753	-32.172	-7.983	1.01	0.25
ATOM	436	CA	LYS	25	4.591	-33.971	-9.109	12.01	0.03
ATOM	437	HA	LYS	25	4.935	-34.158	-10.127	1.01	0.05
ATOM	438	CB	LYS	25	5.650	-34.542	-8.160	12.01	-0.10
ATOM	439	HB1	LYS	25	5.470	-34.174	-7.149	1.01	0.04
ATOM	440	HB2	LYS	25	5.578	-35.631	-8.148	1.01	0.04
ATOM	441	CG	LYS	25	7.063	-34.168	-8.618	12.01	-0.16
ATOM	442	HG1	LYS	25	7.317	-34.755	-9.502	1.01	0.12
ATOM	443	HG2	LYS	25	7.109	-33.108	-8.874	1.01	0.12
ATOM	444	CD	LYS	25	8.051	-34.457	-7.487	12.01	-0.18
ATOM	445	HD1	LYS	25	7.844	-33.768	-6.667	1.01	0.12
ATOM	446	HD2	LYS	25	7.908	-35.480	-7.136	1.01	0.12
ATOM	447	CE	LYS	25	9.496	-34.282	-7.962	12.01	-0.04
ATOM	448	HE1	LYS	25	9.768	-35.126	-8.599	1.01	0.10
ATOM	449	HE2	LYS	25	9.587	-33.362	-8.540	1.01	0.10
ATOM	450	NZ	LYS	25	10.420	-34.209	-6.817	14.01	-0.14
ATOM	451	HZ1	LYS	25	10.260	-34.997	-6.202	1.01	0.29
ATOM	452	HZ2	LYS	25	11.376	-34.213	-7.139	1.01	0.29
ATOM	453	HZ3	LYS	25	10.243	-33.345	-6.315	1.01	0.29
ATOM	454	C	LYS	25	3.268	-34.720	-8.927	12.01	0.62
ATOM	455	O	LYS	25	2.808	-35.389	-9.849	16.00	-0.50
ATOM	456	N	TYR	26	2.681	-34.646	-7.727	14.01	-0.46
ATOM	457	HN	TYR	26	3.121	-34.087	-7.010	1.01	0.25
ATOM	458	CA	TYR	26	1.466	-35.370	-7.361	12.01	0.03
ATOM	459	HA	TYR	26	1.371	-36.255	-7.990	1.01	0.05
ATOM	460	CB	TYR	26	1.605	-35.857	-5.911	12.01	-0.10
ATOM	461	HB1	TYR	26	1.460	-34.993	-5.259	1.01	0.04
ATOM	462	HB2	TYR	26	0.809	-36.570	-5.705	1.01	0.04
ATOM	463	CG	TYR	26	2.928	-36.516	-5.546	12.01	-0.03
ATOM	464	CD1	TYR	26	3.638	-37.302	-6.476	12.01	0.00
ATOM	465	HD1	TYR	26	3.259	-37.457	-7.475	1.01	0.06
ATOM	466	CE1	TYR	26	4.860	-37.896	-6.113	12.01	-0.26
ATOM	467	HE1	TYR	26	5.394	-38.492	-6.839	1.01	0.10
ATOM	468	CZ	TYR	26	5.376	-37.711	-4.819	12.01	0.46
ATOM	469	OH	TYR	26	6.560	-38.286	-4.461	16.00	-0.53
ATOM	470	HH	TYR	26	6.975	-38.778	-5.172	1.01	0.33
ATOM	471	CE2	TYR	26	4.670	-36.931	-3.890	12.01	-0.26
ATOM	472	HE2	TYR	26	5.061	-36.785	-2.895	1.01	0.10
ATOM	473	CD2	TYR	26	3.451	-36.336	-4.254	12.01	0.00
ATOM	474	HD2	TYR	26	2.915	-35.740	-3.537	1.01	0.06
ATOM	475	C	TYR	26	0.167	-34.578	-7.545	12.01	0.62
ATOM	476	O	TYR	26	-0.901	-35.094	-7.217	16.00	-0.50

(475)

特開2003-135087

947

948

ATOM	477	N	GLY	27	0.241	-33.348	-8.063	14.01	-0.46
ATOM	478	HN	GLY	27	1.141	-32.959	-8.312	1.01	0.25
ATOM	479	CA	GLY	27	-0.917	-32.496	-8.290	12.01	0.03
ATOM	480	HA1	GLY	27	-0.668	-31.781	-9.074	1.01	0.03
ATOM	481	HA2	GLY	27	-1.765	-33.093	-8.630	1.01	0.03
ATOM	482	C	GLY	27	-1.316	-31.740	-7.023	12.01	0.62
ATOM	483	O	GLY	27	-0.984	-32.149	-5.910	16.00	-0.50
ATOM	484	N	GLU	28	-2.042	-30.629	-7.198	14.01	-0.46
ATOM	485	HN	GLU	28	-2.290	-30.345	-8.133	1.01	0.25
ATOM	486	CA	GLU	28	-2.524	-29.820	-6.088	12.01	0.03
ATOM	487	HA	GLU	28	-1.718	-29.716	-5.358	1.01	0.05
ATOM	488	CB	GLU	28	-2.918	-28.420	-6.589	12.01	-0.18
ATOM	489	HB1	GLU	28	-2.190	-28.077	-7.326	1.01	0.09
ATOM	490	HB2	GLU	28	-3.902	-28.460	-7.062	1.01	0.09
ATOM	491	CG	GLU	28	-2.932	-27.403	-5.441	12.01	-0.40
ATOM	492	HG1	GLU	28	-3.600	-27.745	-4.652	1.01	0.07
ATOM	493	HG2	GLU	28	-1.924	-27.311	-5.037	1.01	0.07
ATOM	494	CD	GLU	28	-3.401	-26.023	-5.882	12.01	0.71
ATOM	495	OE1	GLU	28	-2.728	-25.413	-6.745	16.00	-0.72
ATOM	496	OE2	GLU	28	-4.412	-25.546	-5.322	16.00	-0.72
ATOM	497	C	GLU	28	-3.698	-30.558	-5.437	12.01	0.62
ATOM	498	O	GLU	28	-4.378	-31.345	-6.096	16.00	-0.50
ATOM	499	N	GLY	29	-3.934	-30.318	-4.145	14.01	-0.46
ATOM	500	HN	GLY	29	-3.348	-29.664	-3.647	1.01	0.25
ATOM	501	CA	GLY	29	-5.010	-30.971	-3.417	12.01	0.03
ATOM	502	HA1	GLY	29	-5.098	-30.505	-2.442	1.01	0.03
ATOM	503	HA2	GLY	29	-5.952	-30.858	-3.955	1.01	0.03
ATOM	504	C	GLY	29	-4.700	-32.448	-3.201	12.01	0.62
ATOM	505	O	GLY	29	-5.561	-33.306	-3.386	16.00	-0.50
ATOM	506	N	ASN	30	-3.454	-32.731	-2.809	14.01	-0.46
ATOM	507	HN	ASN	30	-2.810	-31.964	-2.684	1.01	0.25
ATOM	508	CA	ASN	30	-2.951	-34.073	-2.550	12.01	0.03
ATOM	509	HA	ASN	30	-3.764	-34.693	-2.167	1.01	0.05
ATOM	510	CB	ASN	30	-2.430	-34.651	-3.875	12.01	-0.09
ATOM	511	HB1	ASN	30	-3.158	-34.440	-4.661	1.01	0.04
ATOM	512	HB2	ASN	30	-1.490	-34.167	-4.142	1.01	0.04
ATOM	513	CG	ASN	30	-2.234	-36.162	-3.843	12.01	0.68
ATOM	514	OD1	ASN	30	-2.475	-36.820	-2.834	16.00	-0.47
ATOM	515	ND2	ASN	30	-1.809	-36.727	-4.972	14.01	-0.87
ATOM	516	HD21	ASN	30	-1.712	-37.729	-5.018	1.01	0.34
ATOM	517	HD22	ASN	30	-1.618	-36.148	-5.785	1.01	0.34
ATOM	518	C	ASN	30	-1.862	-33.970	-1.478	12.01	0.62
ATOM	519	O	ASN	30	-0.801	-34.592	-1.570	16.00	-0.50
ATOM	520	N	TRP	31	-2.135	-33.143	-0.462	14.01	-0.46
ATOM	521	HN	TRP	31	-3.030	-32.677	-0.467	1.01	0.25
ATOM	522	CA	TRP	31	-1.230	-32.852	0.641	12.01	0.03
ATOM	523	HA	TRP	31	-0.315	-32.470	0.192	1.01	0.05
ATOM	524	CB	TRP	31	-1.769	-31.712	1.519	12.01	-0.10
ATOM	525	HB1	TRP	31	-2.356	-32.112	2.340	1.01	0.04
ATOM	526	HB2	TRP	31	-0.921	-31.193	1.960	1.01	0.04

949

950

ATOM	527	CG	TRP	31	-2.596	-30.717	0.766	12.01	-0.14
ATOM	528	CD1	TRP	31	-3.944	-30.636	0.793	12.01	0.04
ATOM	529	HD1	TRP	31	-4.595	-31.271	1.372	1.01	0.09
ATOM	530	NE1	TRP	31	-4.366	-29.627	-0.045	14.01	-0.35
ATOM	531	HE1	TRP	31	-5.330	-29.352	-0.228	1.01	0.27
ATOM	532	CE2	TRP	31	-3.300	-29.001	-0.650	12.01	0.15
ATOM	533	CZ2	TRP	31	-3.212	-27.944	-1.565	12.01	-0.17
ATOM	534	HZ2	TRP	31	-4.106	-27.458	-1.928	1.01	0.08
ATOM	535	CH2	TRP	31	-1.947	-27.532	-2.004	12.01	-0.08
ATOM	536	HH2	TRP	31	-1.867	-26.738	-2.723	1.01	0.07
ATOM	537	CZ3	TRP	31	-0.791	-28.173	-1.528	12.01	-0.07
ATOM	538	HZ3	TRP	31	0.179	-27.848	-1.871	1.01	0.06
ATOM	539	CE3	TRP	31	-0.893	-29.236	-0.612	12.01	-0.17
ATOM	540	HE3	TRP	31	0.004	-29.722	-0.259	1.01	0.09
ATOM	541	CD2	TRP	31	-2.151	-29.675	-0.148	12.01	0.15
ATOM	542	C	TRP	31	-0.866	-34.111	1.424	12.01	0.62
ATOM	543	O	TRP	31	0.210	-34.162	2.010	16.00	-0.50
ATOM	544	N	SER	32	-1.734	-35.129	1.415	14.01	-0.46
ATOM	545	HN	SER	32	-2.607	-35.029	0.907	1.01	0.25
ATOM	546	CA	SER	32	-1.485	-36.395	2.082	12.01	0.03
ATOM	547	HA	SER	32	-1.259	-36.211	3.134	1.01	0.05
ATOM	548	CB	SER	32	-2.735	-37.279	2.002	12.01	0.02
ATOM	549	HB1	SER	32	-2.493	-38.278	2.368	1.01	0.12
ATOM	550	HB2	SER	32	-3.515	-36.858	2.635	1.01	0.12
ATOM	551	OG	SER	32	-3.214	-37.367	0.672	16.00	-0.55
ATOM	552	HG	SER	32	-3.706	-36.560	0.461	1.01	0.31
ATOM	553	C	SER	32	-0.279	-37.068	1.425	12.01	0.62
ATOM	554	O	SER	32	0.746	-37.281	2.070	16.00	-0.50
ATOM	555	N	LYS	33	-0.400	-37.393	0.133	14.01	-0.46
ATOM	556	HN	LYS	33	-1.278	-37.183	-0.329	1.01	0.25
ATOM	557	CA	LYS	33	0.662	-38.029	-0.630	12.01	0.03
ATOM	558	HA	LYS	33	0.848	-39.004	-0.176	1.01	0.05
ATOM	559	CB	LYS	33	0.208	-38.258	-2.077	12.01	-0.10
ATOM	560	HB1	LYS	33	-0.745	-38.790	-2.058	1.01	0.04
ATOM	561	HB2	LYS	33	0.077	-37.299	-2.577	1.01	0.04
ATOM	562	CG	LYS	33	1.229	-39.096	-2.852	12.01	-0.16
ATOM	563	HG1	LYS	33	2.101	-38.477	-3.053	1.01	0.12
ATOM	564	HG2	LYS	33	1.518	-39.952	-2.242	1.01	0.12
ATOM	565	CD	LYS	33	0.647	-39.580	-4.184	12.01	-0.18
ATOM	566	HD1	LYS	33	-0.218	-40.220	-3.996	1.01	0.12
ATOM	567	HD2	LYS	33	0.315	-38.712	-4.754	1.01	0.12
ATOM	568	CE	LYS	33	1.685	-40.338	-5.022	12.01	-0.04
ATOM	569	HE1	LYS	33	1.227	-40.609	-5.975	1.01	0.10
ATOM	570	HE2	LYS	33	2.539	-39.689	-5.222	1.01	0.10
ATOM	571	NZ	LYS	33	2.161	-41.569	-4.361	14.01	-0.14
ATOM	572	HZ1	LYS	33	2.712	-41.342	-3.537	1.01	0.29
ATOM	573	HZ2	LYS	33	1.377	-42.146	-4.091	1.01	0.29
ATOM	574	HZ3	LYS	33	2.751	-42.087	-4.997	1.01	0.29
ATOM	575	C	LYS	33	1.947	-37.203	-0.544	12.01	0.62
ATOM	576	O	LYS	33	3.018	-37.763	-0.302	16.00	-0.50

951					952				
ATOM	577	N	ILE	34	1.838	-35.879	-0.723	14.01	-0.46
ATOM	578	HN	ILE	34	0.925	-35.478	-0.914	1.01	0.25
ATOM	579	CA	ILE	34	2.985	-34.983	-0.633	12.01	0.03
ATOM	580	HA	ILE	34	3.709	-35.267	-1.397	1.01	0.05
ATOM	581	CB	ILE	34	2.573	-33.521	-0.896	12.01	-0.01
ATOM	582	HB	ILE	34	1.751	-33.267	-0.230	1.01	0.02
ATOM	583	CG2	ILE	34	3.746	-32.573	-0.602	12.01	-0.08
ATOM	584	HG21	ILE	34	4.616	-32.859	-1.194	1.01	0.03
ATOM	585	HG22	ILE	34	3.476	-31.545	-0.833	1.01	0.03
ATOM	586	HG23	ILE	34	4.010	-32.613	0.452	1.01	0.03
ATOM	587	CG1	ILE	34	2.121	-33.350	-2.359	12.01	-0.05
ATOM	588	HG11	ILE	34	2.987	-33.423	-3.016	1.01	0.03
ATOM	589	HG12	ILE	34	1.428	-34.144	-2.627	1.01	0.03
ATOM	590	CD1	ILE	34	1.404	-32.023	-2.626	12.01	-0.08
ATOM	591	HD1	ILE	34	1.004	-32.038	-3.640	1.01	0.03
ATOM	592	HD2	ILE	34	0.578	-31.893	-1.928	1.01	0.03
ATOM	593	HD3	ILE	34	2.092	-31.183	-2.536	1.01	0.03
ATOM	594	C	ILE	34	3.664	-35.176	0.725	12.01	0.62
ATOM	595	O	ILE	34	4.847	-35.493	0.764	16.00	-0.50
ATOM	596	N	LEU	35	2.926	-35.004	1.826	14.01	-0.46
ATOM	597	HN	LEU	35	1.953	-34.750	1.717	1.01	0.25
ATOM	598	CA	LEU	35	3.424	-35.158	3.188	12.01	0.03
ATOM	599	HA	LEU	35	4.158	-34.372	3.360	1.01	0.05
ATOM	600	CB	LEU	35	2.260	-34.957	4.174	12.01	-0.06
ATOM	601	HB1	LEU	35	1.869	-33.949	4.044	1.01	0.03
ATOM	602	HB2	LEU	35	1.469	-35.664	3.925	1.01	0.03
ATOM	603	CG	LEU	35	2.609	-35.157	5.659	12.01	-0.01
ATOM	604	HG	LEU	35	2.963	-36.176	5.822	1.01	0.03
ATOM	605	CD1	LEU	35	3.680	-34.174	6.140	12.01	-0.11
ATOM	606	HD11	LEU	35	3.350	-33.151	5.962	1.01	0.03
ATOM	607	HD12	LEU	35	3.850	-34.310	7.209	1.01	0.03
ATOM	608	HD13	LEU	35	4.619	-34.349	5.618	1.01	0.03
ATOM	609	CD2	LEU	35	1.340	-34.960	6.496	12.01	-0.11
ATOM	610	HD21	LEU	35	0.574	-35.669	6.181	1.01	0.03
ATOM	611	HD22	LEU	35	1.562	-35.129	7.550	1.01	0.03
ATOM	612	HD23	LEU	35	0.961	-33.945	6.370	1.01	0.03
ATOM	613	C	LEU	35	4.111	-36.509	3.400	12.01	0.62
ATOM	614	O	LEU	35	5.167	-36.565	4.026	16.00	-0.50
ATOM	615	N	LEU	36	3.518	-37.599	2.897	14.01	-0.46
ATOM	616	HN	LEU	36	2.645	-37.494	2.392	1.01	0.25
ATOM	617	CA	LEU	36	4.065	-38.939	3.061	12.01	0.03
ATOM	618	HA	LEU	36	4.171	-39.122	4.130	1.01	0.05
ATOM	619	CB	LEU	36	3.108	-39.997	2.480	12.01	-0.06
ATOM	620	HB1	LEU	36	2.487	-39.563	1.696	1.01	0.03
ATOM	621	HB2	LEU	36	3.705	-40.792	2.031	1.01	0.03
ATOM	622	CG	LEU	36	2.222	-40.656	3.552	12.01	-0.01
ATOM	623	HG	LEU	36	2.866	-41.072	4.329	1.01	0.03
ATOM	624	CD1	LEU	36	1.240	-39.677	4.206	12.01	-0.11
ATOM	625	HD11	LEU	36	1.766	-38.818	4.621	1.01	0.03
ATOM	626	HD12	LEU	36	0.509	-39.339	3.474	1.01	0.03

953

954

ATOM	627	HD13	LEU	36	0.711	-40.182	5.015	1.01	0.03
ATOM	628	CD2	LEU	36	1.432	-41.808	2.922	12.01	-0.11
ATOM	629	HD21	LEU	36	2.119	-42.547	2.507	1.01	0.03
ATOM	630	HD22	LEU	36	0.814	-42.290	3.680	1.01	0.03
ATOM	631	HD23	LEU	36	0.790	-41.430	2.125	1.01	0.03
ATOM	632	C	LEU	36	5.470	-39.072	2.470	12.01	0.62
ATOM	633	O	LEU	36	6.404	-39.422	3.191	16.00	-0.50
ATOM	634	N	HIS	37	5.627	-38.815	1.167	14.01	-0.46
ATOM	635	HN	HIS	37	4.822	-38.532	0.620	1.01	0.25
ATOM	636	CA	HIS	37	6.923	-38.944	0.509	12.01	0.03
ATOM	637	HA	HIS	37	7.381	-39.889	0.806	1.01	0.05
ATOM	638	CB	HIS	37	6.744	-38.969	-1.012	12.01	-0.10
ATOM	639	HB1	HIS	37	6.328	-38.015	-1.337	1.01	0.04
ATOM	640	HB2	HIS	37	7.722	-39.088	-1.481	1.01	0.04
ATOM	641	CG	HIS	37	5.843	-40.069	-1.506	12.01	-0.03
ATOM	642	ND1	HIS	37	6.211	-41.405	-1.514	14.01	-0.15
ATOM	643	HD1	HIS	37	7.093	-41.785	-1.201	1.01	0.23
ATOM	644	CE1	HIS	37	5.175	-42.099	-2.017	12.01	0.24
ATOM	645	HE1	HIS	37	5.182	-43.172	-2.141	1.01	0.04
ATOM	646	NE2	HIS	37	4.138	-41.324	-2.347	14.01	-0.50
ATOM	647	CD2	HIS	37	4.572	-40.043	-2.019	12.01	0.20
ATOM	648	HD2	HIS	37	3.998	-39.143	-2.146	1.01	0.02
ATOM	649	C	HIS	37	7.867	-37.806	0.895	12.01	0.62
ATOM	650	O	HIS	37	9.021	-38.039	1.247	16.00	-0.50
ATOM	651	N	TYR	38	7.364	-36.575	0.797	14.01	-0.46
ATOM	652	HN	TYR	38	6.401	-36.480	0.500	1.01	0.25
ATOM	653	CA	TYR	38	8.079	-35.341	1.066	12.01	0.03
ATOM	654	HA	TYR	38	9.149	-35.531	1.156	1.01	0.05
ATOM	655	CB	TYR	38	7.856	-34.384	-0.113	12.01	-0.10
ATOM	656	HB1	TYR	38	6.801	-34.119	-0.165	1.01	0.04
ATOM	657	HB2	TYR	38	8.407	-33.472	0.082	1.01	0.04
ATOM	658	CG	TYR	38	8.294	-34.922	-1.465	12.01	-0.03
ATOM	659	CD1	TYR	38	7.431	-34.833	-2.574	12.01	0.00
ATOM	660	HD1	TYR	38	6.455	-34.382	-2.471	1.01	0.06
ATOM	661	CE1	TYR	38	7.837	-35.332	-3.825	12.01	-0.26
ATOM	662	HE1	TYR	38	7.170	-35.260	-4.671	1.01	0.10
ATOM	663	CZ	TYR	38	9.103	-35.923	-3.969	12.01	0.46
ATOM	664	OH	TYR	38	9.503	-36.411	-5.179	16.00	-0.53
ATOM	665	HH	TYR	38	10.231	-37.032	-5.092	1.01	0.33
ATOM	666	CE2	TYR	38	9.966	-36.013	-2.865	12.01	-0.26
ATOM	667	HE2	TYR	38	10.942	-36.465	-2.967	1.01	0.10
ATOM	668	CD2	TYR	38	9.563	-35.512	-1.617	12.01	0.00
ATOM	669	HD2	TYR	38	10.242	-35.589	-0.781	1.01	0.06
ATOM	670	C	TYR	38	7.608	-34.747	2.389	12.01	0.62
ATOM	671	O	TYR	38	6.671	-33.957	2.429	16.00	-0.50
ATOM	672	N	LYS	39	8.278	-35.136	3.476	14.01	-0.46
ATOM	673	HN	LYS	39	9.041	-35.787	3.366	1.01	0.25
ATOM	674	CA	LYS	39	7.970	-34.666	4.817	12.01	0.03
ATOM	675	HA	LYS	39	6.888	-34.675	4.949	1.01	0.05
ATOM	676	CB	LYS	39	8.579	-35.633	5.842	12.01	-0.10

955				956			
ATOM	677	HB1 LYS	39	9.654	-35.708	5.677	1.01 0.04
ATOM	678	HB2 LYS	39	8.401	-35.260	6.852	1.01 0.04
ATOM	679	CG LYS	39	7.926	-37.016	5.702	12.01 -0.16
ATOM	680	HC1 LYS	39	6.863	-36.926	5.928	1.01 0.12
ATOM	681	HC2 LYS	39	8.033	-37.381	4.680	1.01 0.12
ATOM	682	CD LYS	39	8.552	-38.039	6.653	12.01 -0.18
ATOM	683	HD1 LYS	39	9.624	-38.101	6.456	1.01 0.12
ATOM	684	HD2 LYS	39	8.393	-37.715	7.683	1.01 0.12
ATOM	685	CE LYS	39	7.898	-39.407	6.417	12.01 -0.04
ATOM	686	HE1 LYS	39	6.822	-39.327	6.582	1.01 0.10
ATOM	687	HE2 LYS	39	8.069	-39.715	5.384	1.01 0.10
ATOM	688	NZ LYS	39	8.444	-40.440	7.315	14.01 -0.14
ATOM	689	HZ1 LYS	39	8.275	-40.184	8.277	1.01 0.29
ATOM	690	HZ2 LYS	39	7.992	-41.323	7.123	1.01 0.29
ATOM	691	HZ3 LYS	39	9.438	-40.537	7.162	1.01 0.29
ATOM	692	C LYS	39	8.443	-33.221	5.011	12.01 0.62
ATOM	693	O LYS	39	9.176	-32.681	4.182	16.00 -0.50
ATOM	694	N PHE	40	8.002	-32.606	6.113	14.01 -0.46
ATOM	695	HN PHE	40	7.405	-33.122	6.742	1.01 0.25
ATOM	696	CA PHE	40	8.304	-31.231	6.495	12.01 0.03
ATOM	697	HA PHE	40	9.168	-30.862	5.940	1.01 0.05
ATOM	698	CB PHE	40	7.088	-30.356	6.165	12.01 -0.10
ATOM	699	HB1 PHE	40	6.253	-30.666	6.793	1.01 0.11
ATOM	700	HB2 PHE	40	7.317	-29.319	6.403	1.01 0.11
ATOM	701	CG PHE	40	6.669	-30.417	4.709	12.01 -0.10
ATOM	702	CD1 PHE	40	5.678	-31.325	4.296	12.01 -0.15
ATOM	703	HD1 PHE	40	5.208	-31.979	5.012	1.01 0.15
ATOM	704	CE1 PHE	40	5.296	-31.386	2.946	12.01 -0.15
ATOM	705	HE1 PHE	40	4.536	-32.086	2.638	1.01 0.15
ATOM	706	CZ PHE	40	5.903	-30.539	2.003	12.01 -0.15
ATOM	707	HZ PHE	40	5.614	-30.581	0.963	1.01 0.15
ATOM	708	CE2 PHE	40	6.893	-29.633	2.415	12.01 -0.15
ATOM	709	HE2 PHE	40	7.359	-28.987	1.690	1.01 0.15
ATOM	710	CD2 PHE	40	7.277	-29.572	3.765	12.01 -0.15
ATOM	711	HD2 PHE	40	8.040	-28.877	4.077	1.01 0.15
ATOM	712	C PHE	40	8.647	-31.194	7.987	12.01 0.62
ATOM	713	O PHE	40	8.662	-32.241	8.635	16.00 -0.50
ATOM	714	N ASN	41	8.922	-30.006	8.543	14.01 -0.46
ATOM	715	HN ASN	41	8.894	-29.162	7.977	1.01 0.25
ATOM	716	CA ASN	41	9.267	-29.875	9.956	12.01 0.03
ATOM	717	HA ASN	41	10.083	-30.566	10.179	1.01 0.05
ATOM	718	CB ASN	41	9.765	-28.459	10.285	12.01 -0.09
ATOM	719	HB1 ASN	41	9.044	-27.711	9.950	1.01 0.04
ATOM	720	HB2 ASN	41	9.863	-28.372	11.368	1.01 0.04
ATOM	721	CG ASN	41	11.137	-28.180	9.671	12.01 0.68
ATOM	722	OD1 ASN	41	12.158	-28.338	10.336	16.00 -0.47
ATOM	723	ND2 ASN	41	11.161	-27.762	8.408	14.01 -0.87
ATOM	724	HD21 ASN	41	12.041	-27.581	7.923	1.01 0.34
ATOM	725	HD22 ASN	41	10.281	-27.632	7.921	1.01 0.34
ATOM	726	C ASN	41	8.074	-30.268	10.828	12.01 0.62

957

958

ATOM	727	O	ASN	41	8.170	-31.201	11.622	16.00	-0.50
ATOM	728	N	ASN	42	6.948	-29.561	10.677	14.01	-0.46
ATOM	729	HN	ASN	42	6.940	-28.808	10.003	1.01	0.25
ATOM	730	CA	ASN	42	5.723	-29.822	11.426	12.01	0.03
ATOM	731	HA	ASN	42	5.543	-30.899	11.443	1.01	0.05
ATOM	732	CB	ASN	42	5.874	-29.331	12.878	12.01	-0.09
ATOM	733	HB1	ASN	42	6.814	-29.703	13.288	1.01	0.04
ATOM	734	HB2	ASN	42	5.907	-28.242	12.908	1.01	0.04
ATOM	735	CG	ASN	42	4.756	-29.840	13.787	12.01	0.68
ATOM	736	OD1	ASN	42	4.956	-30.777	14.556	16.00	-0.47
ATOM	737	ND2	ASN	42	3.575	-29.227	13.718	14.01	-0.87
ATOM	738	HD21	ASN	42	2.820	-29.520	14.319	1.01	0.34
ATOM	739	HD22	ASN	42	3.446	-28.479	13.046	1.01	0.34
ATOM	740	C	ASN	42	4.562	-29.153	10.689	12.01	0.62
ATOM	741	O	ASN	42	3.960	-28.207	11.195	16.00	-0.50
ATOM	742	N	ARG	43	4.265	-29.639	9.477	14.01	-0.46
ATOM	743	HN	ARG	43	4.802	-30.415	9.120	1.01	0.25
ATOM	744	CA	ARG	43	3.213	-29.109	8.619	12.01	0.03
ATOM	745	HA	ARG	43	2.714	-28.271	9.106	1.01	0.05
ATOM	746	CB	ARG	43	3.819	-28.580	7.310	12.01	-0.08
ATOM	747	HB1	ARG	43	4.142	-29.425	6.700	1.01	0.06
ATOM	748	HB2	ARG	43	3.048	-28.043	6.756	1.01	0.06
ATOM	749	CG	ARG	43	5.030	-27.657	7.506	12.01	-0.10
ATOM	750	HC1	ARG	43	5.845	-28.203	7.980	1.01	0.07
ATOM	751	HC2	ARG	43	5.371	-27.357	6.514	1.01	0.07
ATOM	752	CD	ARG	43	4.739	-26.393	8.325	12.01	-0.23
ATOM	753	HD1	ARG	43	3.834	-25.911	7.959	1.01	0.13
ATOM	754	HD2	ARG	43	4.597	-26.640	9.374	1.01	0.13
ATOM	755	NE	ARG	43	5.871	-25.469	8.211	14.01	-0.32
ATOM	756	HE	ARG	43	6.692	-25.806	7.714	1.01	0.27
ATOM	757	CZ	ARG	43	5.913	-24.191	8.609	12.01	0.76
ATOM	758	NH1	ARG	43	6.995	-23.465	8.321	14.01	-0.62
ATOM	759	HH11	ARG	43	7.040	-22.487	8.582	1.01	0.36
ATOM	760	HH12	ARG	43	7.735	-23.901	7.771	1.01	0.36
ATOM	761	NH2	ARG	43	4.906	-23.612	9.268	14.01	-0.62
ATOM	762	HH21	ARG	43	5.011	-22.639	9.533	1.01	0.36
ATOM	763	HH22	ARG	43	4.057	-24.086	9.573	1.01	0.36
ATOM	764	C	ARG	43	2.179	-30.199	8.330	12.01	0.62
ATOM	765	O	ARG	43	2.519	-31.243	7.778	16.00	-0.50
ATOM	766	N	THR	44	0.920	-29.949	8.701	14.01	-0.46
ATOM	767	HN	THR	44	0.709	-29.069	9.147	1.01	0.25
ATOM	768	CA	THR	44	-0.204	-30.852	8.498	12.01	0.03
ATOM	769	HA	THR	44	0.123	-31.891	8.560	1.01	0.05
ATOM	770	CB	THR	44	-1.251	-30.574	9.589	12.01	0.17
ATOM	771	HB	THR	44	-2.064	-31.297	9.500	1.01	0.08
ATOM	772	CG2	THR	44	-0.664	-30.703	11.000	12.01	-0.19
ATOM	773	HC21	THR	44	-0.202	-31.684	11.117	1.01	0.07
ATOM	774	HC22	THR	44	0.084	-29.931	11.185	1.01	0.07
ATOM	775	HC23	THR	44	-1.461	-30.599	11.737	1.01	0.07
ATOM	776	OG1	THR	44	-1.782	-29.272	9.407	16.00	-0.55

959				960			
ATOM	777	HG1 THR	44	-2.389	-29.086	10.130	1.01 0.31
ATOM	778	C THR	44	-0.838	-30.587	7.130	12.01 0.62
ATOM	779	O THR	44	-0.418	-29.675	6.421	16.00 -0.50
ATOM	780	N SER	45	-1.881	-31.351	6.779	14.01 -0.46
ATOM	781	HN SER	45	-2.190	-32.076	7.409	1.01 0.25
ATOM	782	CA SER	45	-2.635	-31.156	5.544	12.01 0.03
ATOM	783	HA SER	45	-1.991	-31.342	4.684	1.01 0.05
ATOM	784	CB SER	45	-3.811	-32.143	5.508	12.01 0.02
ATOM	785	HB1 SER	45	-3.439	-33.167	5.436	1.01 0.12
ATOM	786	HB2 SER	45	-4.404	-32.045	6.418	1.01 0.12
ATOM	787	OG SER	45	-4.654	-31.881	4.406	16.00 -0.55
ATOM	788	HG SER	45	-4.379	-32.443	3.666	1.01 0.31
ATOM	789	C SER	45	-3.133	-29.706	5.501	12.01 0.62
ATOM	790	O SER	45	-3.049	-29.036	4.471	16.00 -0.50
ATOM	791	N VAL	46	-3.635	-29.223	6.647	14.01 -0.46
ATOM	792	HN VAL	46	-3.660	-29.830	7.452	1.01 0.25
ATOM	793	CA VAL	46	-4.132	-27.868	6.806	12.01 0.03
ATOM	794	HA VAL	46	-4.912	-27.708	6.060	1.01 0.05
ATOM	795	CB VAL	46	-4.755	-27.667	8.202	12.01 -0.01
ATOM	796	HB VAL	46	-3.979	-27.747	8.964	1.01 0.02
ATOM	797	CG1 VAL	46	-5.402	-26.281	8.301	12.01 -0.09
ATOM	798	HG11 VAL	46	-4.657	-25.503	8.157	1.01 0.03
ATOM	799	HG12 VAL	46	-6.179	-26.173	7.543	1.01 0.03
ATOM	800	HG13 VAL	46	-5.851	-26.160	9.287	1.01 0.03
ATOM	801	CG2 VAL	46	-5.845	-28.700	8.512	12.01 -0.09
ATOM	802	HG21 VAL	46	-5.445	-29.713	8.486	1.01 0.03
ATOM	803	HG22 VAL	46	-6.248	-28.519	9.509	1.01 0.03
ATOM	804	HG23 VAL	46	-6.652	-28.603	7.786	1.01 0.03
ATOM	805	C VAL	46	-2.998	-26.872	6.547	12.01 0.62
ATOM	806	O VAL	46	-3.178	-25.957	5.748	16.00 -0.50
ATOM	807	N MET	47	-1.841	-27.034	7.210	14.01 -0.46
ATOM	808	HN MET	47	-1.742	-27.808	7.861	1.01 0.25
ATOM	809	CA MET	47	-0.713	-26.119	7.022	12.01 0.03
ATOM	810	HA MET	47	-1.027	-25.101	7.250	1.01 0.05
ATOM	811	CB MET	47	0.460	-26.469	7.945	12.01 -0.15
ATOM	812	HB1 MET	47	0.813	-27.468	7.694	1.01 0.03
ATOM	813	HB2 MET	47	1.265	-25.764	7.737	1.01 0.03
ATOM	814	CG MET	47	0.186	-26.396	9.455	12.01 -0.05
ATOM	815	HG1 MET	47	-0.483	-27.194	9.761	1.01 0.07
ATOM	816	HG2 MET	47	1.144	-26.563	9.948	1.01 0.07
ATOM	817	SD MET	47	-0.448	-24.835	10.127	32.06 0.74
ATOM	818	LP1 MET	47	-0.432	-25.020	10.778	1.00 -0.38
ATOM	819	LP2 MET	47	-0.347	-24.464	9.566	1.00 -0.38
ATOM	820	CE MET	47	-2.226	-25.073	9.892	12.01 -0.13
ATOM	821	HE1 MET	47	-2.744	-24.212	10.291	1.01 0.07
ATOM	822	HE2 MET	47	-2.479	-25.149	8.843	1.01 0.07
ATOM	823	HE3 MET	47	-2.551	-25.969	10.421	1.01 0.07
ATOM	824	C MET	47	-0.244	-26.096	5.566	12.01 0.62
ATOM	825	O MET	47	0.056	-25.031	5.033	16.00 -0.50
ATOM	826	N LEU	48	-0.180	-27.264	4.925	14.01 -0.46

	961						962	
ATOM	827	HN	LEU	48	-0.441	-28.103	5.425	1.01 0.25
ATOM	828	CA	LEU	48	0.246	-27.404	3.542	12.01 0.03
ATOM	829	HA	LEU	48	1.237	-26.962	3.444	1.01 0.05
ATOM	830	CB	LEU	48	0.314	-28.896	3.175	12.01 -0.06
ATOM	831	HB1	LEU	48	-0.614	-29.373	3.489	1.01 0.03
ATOM	832	HB2	LEU	48	0.412	-29.007	2.095	1.01 0.03
ATOM	833	CG	LEU	48	1.507	-29.583	3.858	12.01 -0.01
ATOM	834	HG	LEU	48	1.631	-29.184	4.865	1.01 0.03
ATOM	835	CD1	LEU	48	1.309	-31.098	3.967	12.01 -0.11
ATOM	836	HD11	LEU	48	1.223	-31.544	2.976	1.01 0.03
ATOM	837	HD12	LEU	48	2.167	-31.533	4.479	1.01 0.03
ATOM	838	HD13	LEU	48	0.410	-31.326	4.536	1.01 0.03
ATOM	839	CD2	LEU	48	2.790	-29.325	3.067	12.01 -0.11
ATOM	840	HD21	LEU	48	2.803	-28.321	2.652	1.01 0.03
ATOM	841	HD22	LEU	48	3.644	-29.443	3.731	1.01 0.03
ATOM	842	HD23	LEU	48	2.861	-30.038	2.247	1.01 0.03
ATOM	843	C	LEU	48	-0.691	-26.630	2.616	12.01 0.62
ATOM	844	O	LEU	48	-0.233	-25.801	1.830	16.00 -0.50
ATOM	845	N	LYS	49	-2.001	-26.888	2.709	14.01 -0.46
ATOM	846	HN	LYS	49	-2.333	-27.578	3.374	1.01 0.25
ATOM	847	CA	LYS	49	-2.971	-26.201	1.870	12.01 0.03
ATOM	848	HA	LYS	49	-2.668	-26.371	0.836	1.01 0.05
ATOM	849	CB	LYS	49	-4.375	-26.787	2.065	12.01 -0.10
ATOM	850	HB1	LYS	49	-4.300	-27.875	2.075	1.01 0.04
ATOM	851	HB2	LYS	49	-4.790	-26.471	3.023	1.01 0.04
ATOM	852	CG	LYS	49	-5.288	-26.375	0.898	12.01 -0.16
ATOM	853	HG1	LYS	49	-4.739	-25.811	0.142	1.01 0.12
ATOM	854	HG2	LYS	49	-5.652	-27.285	0.419	1.01 0.12
ATOM	855	CD	LYS	49	-6.526	-25.574	1.308	12.01 -0.18
ATOM	856	HD1	LYS	49	-7.117	-25.457	0.398	1.01 0.12
ATOM	857	HD2	LYS	49	-7.092	-26.147	2.042	1.01 0.12
ATOM	858	CE	LYS	49	-6.231	-24.177	1.859	12.01 -0.04
ATOM	859	HE1	LYS	49	-5.733	-24.253	2.826	1.01 0.10
ATOM	860	HE2	LYS	49	-5.585	-23.649	1.158	1.01 0.10
ATOM	861	NZ	LYS	49	-7.471	-23.394	2.022	14.01 -0.14
ATOM	862	HZ1	LYS	49	-8.082	-23.821	2.707	1.01 0.29
ATOM	863	HZ2	LYS	49	-7.249	-22.458	2.321	1.01 0.29
ATOM	864	HZ3	LYS	49	-7.966	-23.342	1.132	1.01 0.29
ATOM	865	C	LYS	49	-2.967	-24.697	2.142	12.01 0.62
ATOM	866	O	LYS	49	-2.951	-23.903	1.204	16.00 -0.50
ATOM	867	N	ASP	50	-2.990	-24.304	3.420	14.01 -0.46
ATOM	868	HN	ASP	50	-3.003	-25.009	4.146	1.01 0.25
ATOM	869	CA	ASP	50	-2.991	-22.909	3.834	12.01 0.03
ATOM	870	HA	ASP	50	-3.897	-22.436	3.452	1.01 0.05
ATOM	871	CB	ASP	50	-3.009	-22.810	5.359	12.01 -0.40
ATOM	872	HB1	ASP	50	-3.914	-23.276	5.749	1.01 0.07
ATOM	873	HB2	ASP	50	-2.140	-23.321	5.776	1.01 0.07
ATOM	874	CG	ASP	50	-2.976	-21.351	5.785	12.01 0.71
ATOM	875	OD1	ASP	50	-4.060	-20.729	5.734	16.00 -0.72
ATOM	876	OD2	ASP	50	-1.880	-20.883	6.154	16.00 -0.72

(483)

特開2003-135087

963					964				
ATOM	877	C	ASP	50	-1.778	-22.182	3.260	12.01	0.62
ATOM	878	O	ASP	50	-1.911	-21.104	2.682	16.00	-0.50
ATOM	879	N	ARG	51	-0.593	-22.781	3.403	14.01	-0.46
ATOM	880	HN	ARG	51	-0.530	-23.669	3.883	1.01	0.25
ATOM	881	CA	ARG	51	0.614	-22.186	2.869	12.01	0.03
ATOM	882	HA	ARG	51	0.709	-21.199	3.323	1.01	0.05
ATOM	883	CB	ARG	51	1.853	-23.012	3.221	12.01	-0.08
ATOM	884	HB1	ARG	51	1.977	-23.009	4.303	1.01	0.06
ATOM	885	HB2	ARG	51	1.718	-24.041	2.885	1.01	0.06
ATOM	886	CG	ARG	51	3.112	-22.438	2.549	12.01	-0.10
ATOM	887	HG1	ARG	51	3.952	-23.075	2.798	1.01	0.07
ATOM	888	HG2	ARG	51	3.018	-22.474	1.467	1.01	0.07
ATOM	889	CD	ARG	51	3.407	-21.002	3.001	12.01	-0.23
ATOM	890	HD1	ARG	51	2.616	-20.336	2.660	1.01	0.13
ATOM	891	HD2	ARG	51	3.448	-20.982	4.089	1.01	0.13
ATOM	892	NE	ARG	51	4.688	-20.519	2.471	14.01	-0.32
ATOM	893	HE	ARG	51	5.334	-21.230	2.140	1.01	0.27
ATOM	894	CZ	ARG	51	5.072	-19.234	2.399	12.01	0.76
ATOM	895	NH1	ARG	51	4.272	-18.252	2.830	14.01	-0.62
ATOM	896	HH11	ARG	51	4.552	-17.286	2.785	1.01	0.36
ATOM	897	HH12	ARG	51	3.502	-18.505	3.450	1.01	0.36
ATOM	898	NH2	ARG	51	6.273	-18.922	1.903	14.01	-0.62
ATOM	899	HH21	ARG	51	6.603	-17.971	1.890	1.01	0.36
ATOM	900	HH22	ARG	51	6.923	-19.671	1.672	1.01	0.36
ATOM	901	C	ARG	51	0.475	-22.036	1.361	12.01	0.62
ATOM	902	O	ARG	51	0.807	-20.981	0.829	16.00	-0.50
ATOM	903	N	TRP	52	-0.009	-23.070	0.661	14.01	-0.46
ATOM	904	HN	TRP	52	-0.283	-23.937	1.106	1.01	0.25
ATOM	905	CA	TRP	52	-0.165	-22.988	-0.774	12.01	0.03
ATOM	906	HA	TRP	52	0.810	-22.724	-1.183	1.01	0.05
ATOM	907	CB	TRP	52	-0.521	-24.349	-1.351	12.01	-0.10
ATOM	908	HB1	TRP	52	0.136	-25.102	-0.916	1.01	0.04
ATOM	909	HB2	TRP	52	-1.550	-24.600	-1.089	1.01	0.04
ATOM	910	CG	TRP	52	-0.339	-24.398	-2.830	12.01	-0.14
ATOM	911	CD1	TRP	52	-1.338	-24.385	-3.733	12.01	0.04
ATOM	912	HD1	TRP	52	-2.381	-24.338	-3.462	1.01	0.09
ATOM	913	NE1	TRP	52	-0.817	-24.447	-5.008	14.01	-0.35
ATOM	914	HE1	TRP	52	-1.367	-24.463	-5.862	1.01	0.27
ATOM	915	CE2	TRP	52	0.563	-24.492	-4.983	12.01	0.15
ATOM	916	CZ2	TRP	52	1.540	-24.559	-5.988	12.01	-0.17
ATOM	917	HZ2	TRP	52	1.253	-24.584	-7.028	1.01	0.08
ATOM	918	CH2	TRP	52	2.895	-24.594	-5.622	12.01	-0.08
ATOM	919	HH2	TRP	52	3.654	-24.682	-6.383	1.01	0.07
ATOM	920	CZ3	TRP	52	3.257	-24.558	-4.264	12.01	-0.07
ATOM	921	HZ3	TRP	52	4.298	-24.581	-3.980	1.01	0.06
ATOM	922	CE3	TRP	52	2.269	-24.492	-3.265	12.01	-0.17
ATOM	923	HE3	TRP	52	2.565	-24.466	-2.227	1.01	0.09
ATOM	924	CD2	TRP	52	0.898	-24.460	-3.598	12.01	0.15
ATOM	925	C	TRP	52	-1.168	-21.899	-1.162	12.01	0.62
ATOM	926	O	TRP	52	-0.989	-21.246	-2.187	16.00	-0.50

965					966				
ATOM	927	N	ARG	53	-2.203	-21.677	-0.341	14.01	-0.46
ATOM	928	HN	ARG	53	-2.292	-22.246	0.493	1.01	0.25
ATOM	929	CA	ARG	53	-3.187	-20.628	-0.566	12.01	0.03
ATOM	930	HA	ARG	53	-3.622	-20.758	-1.559	1.01	0.05
ATOM	931	CB	ARG	53	-4.327	-20.740	0.467	12.01	-0.08
ATOM	932	HB1	ARG	53	-4.981	-21.552	0.147	1.01	0.06
ATOM	933	HB2	ARG	53	-3.931	-20.994	1.444	1.01	0.06
ATOM	934	CG	ARG	53	-5.160	-19.460	0.622	12.01	-0.10
ATOM	935	HG1	ARG	53	-4.554	-18.676	1.078	1.01	0.07
ATOM	936	HG2	ARG	53	-5.475	-19.127	-0.368	1.01	0.07
ATOM	937	CD	ARG	53	-6.415	-19.683	1.482	12.01	-0.23
ATOM	938	HD1	ARG	53	-6.982	-18.751	1.474	1.01	0.13
ATOM	939	HD2	ARG	53	-7.023	-20.462	1.018	1.01	0.13
ATOM	940	NE	ARG	53	-6.111	-20.038	2.883	14.01	-0.32
ATOM	941	HE	ARG	53	-5.136	-20.115	3.146	1.01	0.27
ATOM	942	CZ	ARG	53	-7.045	-20.186	3.844	12.01	0.76
ATOM	943	NH1	ARG	53	-6.692	-20.475	5.102	14.01	-0.62
ATOM	944	HH11	ARG	53	-7.381	-20.592	5.838	1.01	0.36
ATOM	945	HH12	ARG	53	-5.707	-20.557	5.347	1.01	0.36
ATOM	946	NH2	ARG	53	-8.343	-20.056	3.543	14.01	-0.62
ATOM	947	HH21	ARG	53	-9.034	-20.098	4.290	1.01	0.36
ATOM	948	HH22	ARG	53	-8.636	-19.802	2.612	1.01	0.36
ATOM	949	C	ARG	53	-2.447	-19.286	-0.545	12.01	0.62
ATOM	950	O	ARG	53	-2.575	-18.500	-1.481	16.00	-0.50
ATOM	951	N	THR	54	-1.655	-19.035	0.503	14.01	-0.46
ATOM	952	HN	THR	54	-1.586	-19.725	1.245	1.01	0.25
ATOM	953	CA	THR	54	-0.866	-17.815	0.648	12.01	0.03
ATOM	954	HA	THR	54	-1.547	-16.964	0.676	1.01	0.05
ATOM	955	CB	THR	54	-0.111	-17.873	1.983	12.01	0.17
ATOM	956	HB	THR	54	0.586	-18.711	1.977	1.01	0.08
ATOM	957	CG2	THR	54	0.678	-16.589	2.239	12.01	-0.19
ATOM	958	HG21	THR	54	0.002	-15.735	2.297	1.01	0.07
ATOM	959	HG22	THR	54	1.210	-16.692	3.179	1.01	0.07
ATOM	960	HG23	THR	54	1.412	-16.416	1.452	1.01	0.07
ATOM	961	OG1	THR	54	-1.037	-18.067	3.032	16.00	-0.55
ATOM	962	HG1	THR	54	-0.558	-18.303	3.831	1.01	0.31
ATOM	963	C	THR	54	0.104	-17.636	-0.529	12.01	0.62
ATOM	964	O	THR	54	0.166	-16.566	-1.136	16.00	-0.50
ATOM	965	N	MET	55	0.862	-18.692	-0.846	14.01	-0.46
ATOM	966	HN	MET	55	0.750	-19.535	-0.301	1.01	0.25
ATOM	967	CA	MET	55	1.838	-18.724	-1.924	12.01	0.03
ATOM	968	HA	MET	55	2.635	-18.015	-1.701	1.01	0.05
ATOM	969	CB	MET	55	2.421	-20.140	-2.048	12.01	-0.15
ATOM	970	HB1	MET	55	1.600	-20.852	-2.072	1.01	0.03
ATOM	971	HB2	MET	55	2.957	-20.242	-2.990	1.01	0.03
ATOM	972	CG	MET	55	3.355	-20.505	-0.887	12.01	-0.05
ATOM	973	HG1	MET	55	3.205	-19.815	-0.057	1.01	0.07
ATOM	974	HG2	MET	55	3.095	-21.506	-0.551	1.01	0.07
ATOM	975	SD	MET	55	5.119	-20.557	-1.284	32.06	0.74
ATOM	976	LP1	MET	55	5.059	-20.897	-1.869	1.00	-0.38

967				968			
ATOM	977	LP2 MET	55	5.344	-20.392	-0.664	1.00 -0.38
ATOM	978	CE MET	55	5.315	-18.918	-2.015	12.01 -0.13
ATOM	979	HE1 MET	55	6.363	-18.770	-2.271	1.01 0.07
ATOM	980	HE2 MET	55	4.707	-18.827	-2.919	1.01 0.07
ATOM	981	HE3 MET	55	5.004	-18.176	-1.283	1.01 0.07
ATOM	982	C MET	55	1.178	-18.319	-3.235	12.01 0.62
ATOM	983	O MET	55	1.581	-17.338	-3.853	16.00 -0.50
ATOM	984	N LYS	56	0.164	-19.084	-3.647	14.01 -0.46
ATOM	985	HN LYS	56	-0.103	-19.873	-3.074	1.01 0.25
ATOM	986	CA LYS	56	-0.584	-18.865	-4.870	12.01 0.03
ATOM	987	HA LYS	56	0.130	-18.918	-5.690	1.01 0.05
ATOM	988	CB LYS	56	-1.577	-20.019	-5.071	12.01 -0.10
ATOM	989	HB1 LYS	56	-1.013	-20.952	-5.033	1.01 0.04
ATOM	990	HB2 LYS	56	-2.317	-20.020	-4.269	1.01 0.04
ATOM	991	CG LYS	56	-2.285	-19.926	-6.429	12.01 -0.16
ATOM	992	HC1 LYS	56	-3.125	-19.234	-6.352	1.01 0.12
ATOM	993	HC2 LYS	56	-1.586	-19.542	-7.173	1.01 0.12
ATOM	994	CD LYS	56	-2.777	-21.289	-6.932	12.01 -0.18
ATOM	995	HD1 LYS	56	-3.283	-21.131	-7.886	1.01 0.12
ATOM	996	HD2 LYS	56	-1.912	-21.934	-7.102	1.01 0.12
ATOM	997	CE LYS	56	-3.736	-21.978	-5.955	12.01 -0.04
ATOM	998	HE1 LYS	56	-3.197	-22.248	-5.045	1.01 0.10
ATOM	999	HE2 LYS	56	-4.552	-21.303	-5.694	1.01 0.10
ATOM	1000	NZ LYS	56	-4.299	-23.205	-6.546	14.01 -0.14
ATOM	1001	HZ1 LYS	56	-3.556	-23.814	-6.879	1.01 0.29
ATOM	1002	HZ2 LYS	56	-4.781	-23.762	-5.844	1.01 0.29
ATOM	1003	HZ3 LYS	56	-4.928	-22.997	-7.306	1.01 0.29
ATOM	1004	C LYS	56	-1.245	-17.482	-4.884	12.01 0.62
ATOM	1005	O LYS	56	-1.356	-16.872	-5.943	16.00 -0.50
ATOM	1006	N LYS	57	-1.677	-16.978	-3.723	14.01 -0.46
ATOM	1007	HN LYS	57	-1.566	-17.520	-2.874	1.01 0.25
ATOM	1008	CA LYS	57	-2.309	-15.672	-3.615	12.01 0.03
ATOM	1009	HA LYS	57	-3.131	-15.630	-4.333	1.01 0.05
ATOM	1010	CB LYS	57	-2.917	-15.496	-2.212	12.01 -0.10
ATOM	1011	HB1 LYS	57	-3.760	-16.182	-2.109	1.01 0.04
ATOM	1012	HB2 LYS	57	-2.173	-15.750	-1.460	1.01 0.04
ATOM	1013	CG LYS	57	-3.401	-14.065	-1.922	12.01 -0.16
ATOM	1014	HC1 LYS	57	-2.559	-13.377	-1.976	1.01 0.12
ATOM	1015	HC2 LYS	57	-4.145	-13.773	-2.665	1.01 0.12
ATOM	1016	CD LYS	57	-4.009	-13.987	-0.515	12.01 -0.18
ATOM	1017	HD1 LYS	57	-4.921	-14.586	-0.500	1.01 0.12
ATOM	1018	HD2 LYS	57	-3.312	-14.406	0.215	1.01 0.12
ATOM	1019	CE LYS	57	-4.363	-12.548	-0.110	12.01 -0.04
ATOM	1020	HE1 LYS	57	-5.002	-12.095	-0.869	1.01 0.10
ATOM	1021	HE2 LYS	57	-4.915	-12.579	0.830	1.01 0.10
ATOM	1022	NZ LYS	57	-3.170	-11.703	0.096	14.01 -0.14
ATOM	1023	HZ1 LYS	57	-2.651	-11.591	-0.762	1.01 0.29
ATOM	1024	HZ2 LYS	57	-3.459	-10.779	0.408	1.01 0.29
ATOM	1025	HZ3 LYS	57	-2.571	-12.097	0.808	1.01 0.29
ATOM	1026	C LYS	57	-1.338	-14.535	-3.944	12.01 0.62

969					970				
ATOM	1027	O	LYS	57	-1.626	-13.741	-4.837	16.00	-0.50
ATOM	1028	N	LEU	58	-0.227	-14.418	-3.200	14.01	-0.46
ATOM	1029	HN	LEU	58	-0.054	-15.096	-2.466	1.01	0.25
ATOM	1030	CA	LEU	58	0.707	-13.305	-3.359	12.01	0.03
ATOM	1031	HA	LEU	58	0.156	-12.477	-3.808	1.01	0.05
ATOM	1032	CB	LEU	58	1.130	-12.791	-1.976	12.01	-0.06
ATOM	1033	HB1	LEU	58	0.228	-12.681	-1.372	1.01	0.03
ATOM	1034	HB2	LEU	58	1.771	-13.526	-1.486	1.01	0.03
ATOM	1035	CG	LEU	58	1.834	-11.422	-2.070	12.01	-0.01
ATOM	1036	HG	LEU	58	1.607	-10.946	-3.024	1.01	0.03
ATOM	1037	CD1	LEU	58	1.353	-10.469	-0.975	12.01	-0.11
ATOM	1038	HD11	LEU	58	1.659	-10.846	-0.001	1.01	0.03
ATOM	1039	HD12	LEU	58	1.796	-9.484	-1.129	1.01	0.03
ATOM	1040	HD13	LEU	58	0.268	-10.371	-1.009	1.01	0.03
ATOM	1041	CD2	LEU	58	3.352	-11.576	-1.957	12.01	-0.11
ATOM	1042	HD21	LEU	58	3.713	-12.148	-2.806	1.01	0.03
ATOM	1043	HD22	LEU	58	3.832	-10.597	-1.967	1.01	0.03
ATOM	1044	HD23	LEU	58	3.608	-12.087	-1.029	1.01	0.03
ATOM	1045	C	LEU	58	1.913	-13.561	-4.267	12.01	0.62
ATOM	1046	O	LEU	58	2.192	-12.738	-5.136	16.00	-0.50
ATOM	1047	N	LYS	59	2.656	-14.658	-4.078	14.01	-0.46
ATOM	1048	HN	LYS	59	2.405	-15.330	-3.365	1.01	0.25
ATOM	1049	CA	LYS	59	3.838	-14.929	-4.898	12.01	0.03
ATOM	1050	HA	LYS	59	4.405	-14.006	-5.029	1.01	0.05
ATOM	1051	CB	LYS	59	4.760	-15.946	-4.214	12.01	-0.10
ATOM	1052	HB1	LYS	59	4.243	-16.904	-4.170	1.01	0.04
ATOM	1053	HB2	LYS	59	5.653	-16.073	-4.828	1.01	0.04
ATOM	1054	CG	LYS	59	5.190	-15.560	-2.789	12.01	-0.16
ATOM	1055	HG1	LYS	59	4.305	-15.464	-2.159	1.01	0.12
ATOM	1056	HG2	LYS	59	5.809	-16.370	-2.412	1.01	0.12
ATOM	1057	CD	LYS	59	6.041	-14.285	-2.713	12.01	-0.18
ATOM	1058	HD1	LYS	59	6.842	-14.348	-3.452	1.01	0.12
ATOM	1059	HD2	LYS	59	5.435	-13.416	-2.949	1.01	0.12
ATOM	1060	CE	LYS	59	6.681	-14.108	-1.325	12.01	-0.04
ATOM	1061	HE1	LYS	59	7.389	-14.921	-1.160	1.01	0.10
ATOM	1062	HE2	LYS	59	7.230	-13.165	-1.305	1.01	0.10
ATOM	1063	NZ	LYS	59	5.695	-14.112	-0.223	14.01	-0.14
ATOM	1064	HZ1	LYS	59	5.028	-13.355	-0.290	1.01	0.29
ATOM	1065	HZ2	LYS	59	5.180	-14.979	-0.201	1.01	0.29
ATOM	1066	HZ3	LYS	59	6.150	-13.998	0.671	1.01	0.29
ATOM	1067	C	LYS	59	3.410	-15.423	-6.282	12.01	0.62
ATOM	1068	O	LYS	59	4.042	-15.105	-7.287	16.00	-0.50
ATOM	1069	N	LEU	60	2.323	-16.197	-6.305	14.01	-0.46
ATOM	1070	HN	LEU	60	1.880	-16.394	-5.418	1.01	0.25
ATOM	1071	CA	LEU	60	1.694	-16.776	-7.473	12.01	0.03
ATOM	1072	HA	LEU	60	0.878	-17.358	-7.062	1.01	0.05
ATOM	1073	CB	LEU	60	1.087	-15.680	-8.368	12.01	-0.06
ATOM	1074	HB1	LEU	60	0.746	-14.875	-7.715	1.01	0.03
ATOM	1075	HB2	LEU	60	1.844	-15.269	-9.037	1.01	0.03
ATOM	1076	CG	LEU	60	-0.142	-16.147	-9.172	12.01	-0.01

971				972			
ATOM	1077	HC	LEU	60	-0.882	-16.558	-8.486 1.01 0.03
ATOM	1078	CD1	LEU	60	-0.777	-14.937	-9.866 12.01 -0.11
ATOM	1079	HD11	LEU	60	-1.056	-14.189	-9.124 1.01 0.03
ATOM	1080	HD12	LEU	60	-0.072	-14.497	-10.572 1.01 0.03
ATOM	1081	HD13	LEU	60	-1.675	-15.247	-10.402 1.01 0.03
ATOM	1082	CD2	LEU	60	0.179	-17.216	-10.224 12.01 -0.11
ATOM	1083	HD21	LEU	60	0.977	-16.868	-10.881 1.01 0.03
ATOM	1084	HD22	LEU	60	0.476	-18.147	-9.745 1.01 0.03
ATOM	1085	HD23	LEU	60	-0.709	-17.417	-10.824 1.01 0.03
ATOM	1086	C	LEU	60	2.598	-17.771	-8.196 12.01 0.62
ATOM	1087	O	LEU	60	3.097	-17.505	-9.288 16.00 -0.50
ATOM	1088	N	ILE	61	2.776	-18.948	-7.587 14.01 -0.46
ATOM	1089	HN	ILE	61	2.331	-19.102	-6.692 1.01 0.25
ATOM	1090	CA	ILE	61	3.551	-20.022	-8.193 12.01 0.03
ATOM	1091	HA	ILE	61	4.474	-19.610	-8.605 1.01 0.05
ATOM	1092	CB	ILE	61	3.937	-21.096	-7.163 12.01 -0.01
ATOM	1093	HB	ILE	61	3.040	-21.455	-6.656 1.01 0.02
ATOM	1094	CG2	ILE	61	4.608	-22.271	-7.896 12.01 -0.08
ATOM	1095	HC21	ILE	61	5.423	-21.900	-8.517 1.01 0.03
ATOM	1096	HC22	ILE	61	5.004	-22.995	-7.191 1.01 0.03
ATOM	1097	HC23	ILE	61	3.889	-22.790	-8.530 1.01 0.03
ATOM	1098	CG1	ILE	61	4.896	-20.483	-6.129 12.01 -0.05
ATOM	1099	HC11	ILE	61	5.848	-20.242	-6.605 1.01 0.03
ATOM	1100	HC12	ILE	61	4.467	-19.563	-5.730 1.01 0.03
ATOM	1101	CD1	ILE	61	5.145	-21.411	-4.939 12.01 -0.08
ATOM	1102	HD1	ILE	61	4.194	-21.686	-4.483 1.01 0.03
ATOM	1103	HD2	ILE	61	5.672	-22.312	-5.244 1.01 0.03
ATOM	1104	HD3	ILE	61	5.759	-20.887	-4.207 1.01 0.03
ATOM	1105	C	ILE	61	2.695	-20.591	-9.328 12.01 0.62
ATOM	1106	O	ILE	61	1.706	-21.279	-9.082 16.00 -0.50
ATOM	1107	N	SER	62	3.079	-20.278	-10.567 14.01 -0.46
ATOM	1108	HN	SER	62	3.900	-19.700	-10.670 1.01 0.25
ATOM	1109	CA	SER	62	2.373	-20.692	-11.769 12.01 0.03
ATOM	1110	HA	SER	62	1.304	-20.735	-11.552 1.01 0.05
ATOM	1111	CB	SER	62	2.582	-19.625	-12.854 12.01 0.02
ATOM	1112	HB1	SER	62	2.231	-18.662	-12.480 1.01 0.12
ATOM	1113	HB2	SER	62	3.643	-19.542	-13.098 1.01 0.12
ATOM	1114	OG	SER	62	1.864	-19.934	-14.034 16.00 -0.55
ATOM	1115	HC	SER	62	2.311	-20.646	-14.508 1.01 0.31
ATOM	1116	C	SER	62	2.825	-22.061	-12.280 12.01 0.62
ATOM	1117	O	SER	62	3.924	-22.539	-11.983 16.00 -0.50
ATOM	1118	N	SER	63	1.953	-22.660	-13.095 14.01 -0.46
ATOM	1119	HN	SER	63	1.082	-22.187	-13.299 1.01 0.25
ATOM	1120	CA	SER	63	2.165	-23.916	-13.785 12.01 0.03
ATOM	1121	HA	SER	63	2.761	-24.596	-13.174 1.01 0.05
ATOM	1122	CB	SER	63	0.802	-24.558	-14.067 12.01 0.02
ATOM	1123	HB1	SER	63	0.914	-25.415	-14.733 1.01 0.12
ATOM	1124	HB2	SER	63	0.366	-24.902	-13.127 1.01 0.12
ATOM	1125	OG	SER	63	-0.076	-23.611	-14.645 16.00 -0.55
ATOM	1126	HC	SER	63	0.286	-23.310	-15.483 1.01 0.31

973				974			
ATOM	1127	C	SER	63	2.909	-23.591	-15.083 12.01 0.62
ATOM	1128	O	SER	63	2.980	-22.428	-15.483 16.00 -0.50
ATOM	1129	N	ASP	64	3.462	-24.614	-15.739 14.01 -0.46
ATOM	1130	HN	ASP	64	3.376	-25.549	-15.368 1.01 0.25
ATOM	1131	CA	ASP	64	4.206	-24.449	-16.983 12.01 0.03
ATOM	1132	HA	ASP	64	4.893	-23.607	-16.869 1.01 0.05
ATOM	1133	CB	ASP	64	5.049	-25.701	-17.247 12.01 -0.40
ATOM	1134	HB1	ASP	64	4.391	-26.554	-17.419 1.01 0.07
ATOM	1135	HB2	ASP	64	5.656	-25.545	-18.139 1.01 0.07
ATOM	1136	CG	ASP	64	5.977	-26.004	-16.076 12.01 0.71
ATOM	1137	OD1	ASP	64	6.064	-27.189	-15.692 16.00 -0.72
ATOM	1138	OD2	ASP	64	6.527	-25.043	-15.493 16.00 -0.72
ATOM	1139	C	ASP	64	3.278	-24.119	-18.155 12.01 0.62
ATOM	1140	O	ASP	64	3.677	-23.394	-19.062 16.00 -0.50
ATOM	1141	N	SER	65	2.044	-24.641	-18.122 14.01 -0.46
ATOM	1142	HN	SER	65	1.802	-25.226	-17.339 1.01 0.25
ATOM	1143	CA	SER	65	1.013	-24.430	-19.133 12.01 0.03
ATOM	1144	HA	SER	65	0.091	-24.848	-18.727 1.01 0.05
ATOM	1145	CB	SER	65	0.774	-22.929	-19.371 12.01 0.02
ATOM	1146	HB1	SER	65	0.769	-22.394	-18.421 1.01 0.12
ATOM	1147	HB2	SER	65	1.559	-22.515	-20.007 1.01 0.12
ATOM	1148	OG	SER	65	-0.473	-22.718	-20.004 16.00 -0.55
ATOM	1149	HG	SER	65	-0.328	-22.128	-20.759 1.01 0.31
ATOM	1150	C	SER	65	1.320	-25.181	-20.435 12.01 0.62
ATOM	1151	O	SER	65	2.254	-25.979	-20.500 16.00 -0.50
ATOM	1152	N	GLU	66	0.507	-24.908	-21.460 14.01 -0.46
ATOM	1153	HN	GLU	66	-0.227	-24.231	-21.297 1.01 0.25
ATOM	1154	CA	GLU	66	0.581	-25.472	-22.797 12.01 0.03
ATOM	1155	HA	GLU	66	1.408	-26.179	-22.871 1.01 0.05
ATOM	1156	CB	GLU	66	-0.743	-26.208	-23.073 12.01 -0.18
ATOM	1157	HB1	GLU	66	-0.956	-26.880	-22.241 1.01 0.09
ATOM	1158	HB2	GLU	66	-1.551	-25.478	-23.137 1.01 0.09
ATOM	1159	CG	GLU	66	-0.724	-27.044	-24.359 12.01 -0.40
ATOM	1160	HG1	GLU	66	-1.740	-27.379	-24.565 1.01 0.07
ATOM	1161	HG2	GLU	66	-0.388	-26.432	-25.196 1.01 0.07
ATOM	1162	CD	GLU	66	0.165	-28.277	-24.232 12.01 0.71
ATOM	1163	OE1	GLU	66	1.247	-28.269	-24.857 16.00 -0.72
ATOM	1164	OE2	GLU	66	-0.261	-29.210	-23.517 16.00 -0.72
ATOM	1165	C	GLU	66	0.836	-24.298	-23.747 12.01 0.62
ATOM	1166	O	GLU	66	-0.020	-23.941	-24.556 16.00 -0.50
ATOM	1167	N	ASP	67	2.021	-23.690	-23.618 14.01 -0.46
ATOM	1168	HN	ASP	67	2.678	-24.033	-22.931 1.01 0.25
ATOM	1169	CA	ASP	67	2.463	-22.540	-24.392 12.01 0.03
ATOM	1170	HA	ASP	67	1.880	-22.445	-25.310 1.01 0.05
ATOM	1171	CB	ASP	67	2.303	-21.260	-23.557 12.01 -0.40
ATOM	1172	HB1	ASP	67	2.851	-21.370	-22.621 1.01 0.07
ATOM	1173	HB2	ASP	67	2.736	-20.427	-24.112 1.01 0.07
ATOM	1174	CG	ASP	67	0.845	-20.927	-23.250 12.01 0.71
ATOM	1175	OD1	ASP	67	0.238	-20.208	-24.074 16.00 -0.72
ATOM	1176	OD2	ASP	67	0.365	-21.374	-22.184 16.00 -0.72

	975						976	
ATOM	1177	C	ASP	67	3.930	-22.748	-24.772	12.01 0.52
ATOM	1178	OT1	ASP	67	4.329	-22.199	-25.823	16.00 -0.71
ATOM	1179	OT2	ASP	67	4.662	-23.300	-23.921	16.00 -0.71
TER								
ATOM	1180	H05'	GUA	68	-8.270	-39.727	11.107	1.01 0.28
ATOM	1181	O5'	GUA	68	-7.363	-40.032	11.189	16.00 -0.40
ATOM	1182	C5'	GUA	68	-7.023	-40.715	10.001	12.01 0.12
ATOM	1183	H5' 1	GUA	68	-7.624	-41.623	9.934	1.01 0.02
ATOM	1184	H5' 2	GUA	68	-5.967	-40.986	10.026	1.01 0.02
ATOM	1185	C4'	GUA	68	-7.302	-39.833	8.781	12.01 0.04
ATOM	1186	H4'	GUA	68	-7.129	-40.410	7.870	1.01 0.06
ATOM	1187	O4'	GUA	68	-8.641	-39.376	8.777	16.00 -0.37
ATOM	1188	C1'	GUA	68	-8.721	-38.329	7.834	12.01 0.38
ATOM	1189	H1'	GUA	68	-8.692	-38.692	6.809	1.01 0.01
ATOM	1190	N9	GUA	68	-9.902	-37.472	8.064	14.01 -0.04
ATOM	1191	C8	GUA	68	-10.299	-36.883	9.233	12.01 0.27
ATOM	1192	H8	GUA	68	-9.709	-36.965	10.134	1.01 0.05
ATOM	1193	N7	GUA	68	-11.420	-36.222	9.146	14.01 -0.54
ATOM	1194	C5	GUA	68	-11.777	-36.352	7.807	12.01 -0.06
ATOM	1195	C6	GUA	68	-12.903	-35.834	7.096	12.01 0.69
ATOM	1196	O6	GUA	68	-13.873	-35.229	7.547	16.00 -0.46
ATOM	1197	N1	GUA	68	-12.827	-36.083	5.731	14.01 -0.73
ATOM	1198	H1	GUA	68	-13.586	-35.712	5.169	1.01 0.34
ATOM	1199	C2	GUA	68	-11.813	-36.793	5.119	12.01 0.87
ATOM	1200	N2	GUA	68	-11.857	-36.929	3.793	14.01 -0.78
ATOM	1201	H21	GUA	68	-12.595	-36.504	3.253	1.01 0.33
ATOM	1202	H22	GUA	68	-11.108	-37.417	3.327	1.01 0.34
ATOM	1203	N3	GUA	68	-10.784	-37.327	5.791	14.01 -0.71
ATOM	1204	C4	GUA	68	-10.821	-37.069	7.125	12.01 0.39
ATOM	1205	C3'	GUA	68	-6.458	-38.552	8.740	12.01 0.23
ATOM	1206	H3'	GUA	68	-6.206	-38.210	9.745	1.01 0.03
ATOM	1207	C2'	GUA	68	-7.438	-37.567	8.097	12.01 -0.31
ATOM	1208	H2' 1	GUA	68	-7.618	-36.712	8.718	1.01 0.08
ATOM	1209	H2' 2	GUA	68	-7.089	-37.191	7.166	1.01 0.08
ATOM	1210	O3'	GUA	68	-5.285	-38.779	7.971	16.00 -0.51
ATOM	1211	P	THY	69	-4.227	-37.608	7.585	30.97 1.39
ATOM	1212	OP1	THY	69	-4.104	-36.686	8.736	16.00 -0.85
ATOM	1213	OP2	THY	69	-3.019	-38.251	7.024	16.00 -0.85
ATOM	1214	O5'	THY	69	-4.965	-36.820	6.386	16.00 -0.51
ATOM	1215	C5'	THY	69	-5.481	-37.521	5.268	12.01 0.12
ATOM	1216	H5' 1	THY	69	-4.657	-37.802	4.612	1.01 0.02
ATOM	1217	H5' 2	THY	69	-5.991	-38.433	5.578	1.01 0.02
ATOM	1218	C4'	THY	69	-6.493	-36.674	4.486	12.01 0.04
ATOM	1219	H4'	THY	69	-6.939	-37.334	3.766	1.01 0.06
ATOM	1220	O4'	THY	69	-7.631	-36.237	5.193	16.00 -0.37
ATOM	1221	C1'	THY	69	-8.123	-35.064	4.588	12.01 0.38
ATOM	1222	H1'	THY	69	-8.573	-35.282	3.619	1.01 0.01
ATOM	1223	N1	THY	69	-9.046	-34.377	5.530	14.01 -0.22
ATOM	1224	C6	THY	69	-8.723	-34.308	6.863	12.01 0.03
ATOM	1225	H6	THY	69	-7.812	-34.789	7.183	1.01 0.13

977

978

ATOM	1226	C5	THY	69	-9.544	-33.706	7.757	12.01	-0.18
ATOM	1227	C7	THY	69	-9.063	-33.649	9.196	12.01	-0.38
ATOM	1228	H71	THY	69	-9.919	-33.733	9.866	1.01	0.11
ATOM	1229	H72	THY	69	-8.365	-34.456	9.420	1.01	0.11
ATOM	1230	H73	THY	69	-8.573	-32.691	9.369	1.01	0.11
ATOM	1231	C4	THY	69	-10.811	-33.134	7.352	12.01	0.81
ATOM	1232	O4	THY	69	-11.612	-32.574	8.094	16.00	-0.46
ATOM	1233	N3	THY	69	-11.081	-33.265	6.000	14.01	-0.85
ATOM	1234	H3	THY	69	-11.970	-32.899	5.674	1.01	0.35
ATOM	1235	C2	THY	69	-10.251	-33.853	5.055	12.01	0.85
ATOM	1236	O2	THY	69	-10.590	-33.896	3.877	16.00	-0.49
ATOM	1237	C3'	THY	69	-5.875	-35.410	3.880	12.01	0.23
ATOM	1238	H3'	THY	69	-4.874	-35.256	4.286	1.01	0.03
ATOM	1239	C2'	THY	69	-6.813	-34.311	4.386	12.01	-0.31
ATOM	1240	H2' 1	THY	69	-6.425	-33.949	5.337	1.01	0.08
ATOM	1241	H2' 2	THY	69	-6.919	-33.492	3.683	1.01	0.08
ATOM	1242	O3'	THY	69	-5.827	-35.491	2.466	16.00	-0.51
ATOM	1243	P	THY	70	-5.052	-34.373	1.598	30.97	1.39
ATOM	1244	OP1	THY	70	-4.105	-33.693	2.503	16.00	-0.85
ATOM	1245	OP2	THY	70	-4.524	-35.007	0.369	16.00	-0.85
ATOM	1246	O5'	THY	70	-6.194	-33.309	1.214	16.00	-0.51
ATOM	1247	C5'	THY	70	-7.258	-33.623	0.338	12.01	0.12
ATOM	1248	H5' 1	THY	70	-6.897	-33.653	-0.691	1.01	0.02
ATOM	1249	H5' 2	THY	70	-7.680	-34.595	0.600	1.01	0.02
ATOM	1250	C4'	THY	70	-8.357	-32.564	0.484	12.01	0.04
ATOM	1251	H4'	THY	70	-9.217	-32.842	-0.128	1.01	0.06
ATOM	1252	O4'	THY	70	-8.770	-32.474	1.831	16.00	-0.37
ATOM	1253	C1'	THY	70	-9.423	-31.236	1.992	12.01	0.38
ATOM	1254	H1'	THY	70	-10.379	-31.263	1.471	1.01	0.01
ATOM	1255	N1	THY	70	-9.564	-30.886	3.427	14.01	-0.22
ATOM	1256	C6	THY	70	-8.508	-31.054	4.289	12.01	0.03
ATOM	1257	H6	THY	70	-7.571	-31.412	3.890	1.01	0.13
ATOM	1258	C5	THY	70	-8.629	-30.767	5.608	12.01	-0.18
ATOM	1259	C7	THY	70	-7.387	-31.000	6.443	12.01	-0.38
ATOM	1260	H71	THY	70	-7.600	-30.807	7.494	1.01	0.11
ATOM	1261	H72	THY	70	-7.059	-32.032	6.342	1.01	0.11
ATOM	1262	H73	THY	70	-6.590	-30.340	6.103	1.01	0.11
ATOM	1263	C4	THY	70	-9.872	-30.272	6.166	12.01	0.81
ATOM	1264	O4	THY	70	-10.067	-29.974	7.341	16.00	-0.46
ATOM	1265	N3	THY	70	-10.892	-30.155	5.239	14.01	-0.85
ATOM	1266	H3	THY	70	-11.784	-29.804	5.565	1.01	0.35
ATOM	1267	C2	THY	70	-10.785	-30.384	3.878	12.01	0.85
ATOM	1268	O2	THY	70	-11.720	-30.115	3.130	16.00	-0.49
ATOM	1269	C3'	THY	70	-7.910	-31.137	0.131	12.01	0.23
ATOM	1270	H3'	THY	70	-6.823	-31.073	0.154	1.01	0.03
ATOM	1271	C2'	THY	70	-8.499	-30.273	1.257	12.01	-0.31
ATOM	1272	H2' 1	THY	70	-7.692	-29.903	1.889	1.01	0.08
ATOM	1273	H2' 2	THY	70	-9.088	-29.431	0.906	1.01	0.08
ATOM	1274	O3'	THY	70	-8.395	-30.780	-1.151	16.00	-0.51
ATOM	1275	P	ADE	71	-8.000	-29.379	-1.845	30.97	1.39

979

980

ATOM	1276	OP1	ADE	71	-6.668	-28.972	-1.343	16.00	-0.85
ATOM	1277	OP2	ADE	71	-8.241	-29.486	-3.299	16.00	-0.85
ATOM	1278	O5'	ADE	71	-9.055	-28.345	-1.229	16.00	-0.51
ATOM	1279	C5'	ADE	71	-10.406	-28.275	-1.631	12.01	0.12
ATOM	1280	H5' 1	ADE	71	-10.453	-28.024	-2.692	1.01	0.02
ATOM	1281	H5' 2	ADE	71	-10.914	-29.225	-1.460	1.01	0.02
ATOM	1282	C4'	ADE	71	-11.086	-27.160	-0.823	12.01	0.04
ATOM	1283	H4'	ADE	71	-12.038	-26.903	-1.289	1.01	0.06
ATOM	1284	O4'	ADE	71	-11.312	-27.584	0.524	16.00	-0.37
ATOM	1285	C1'	ADE	71	-10.970	-26.516	1.382	12.01	0.38
ATOM	1286	H1'	ADE	71	-11.723	-25.728	1.339	1.01	0.01
ATOM	1287	N9	ADE	71	-10.682	-26.885	2.787	14.01	-0.07
ATOM	1288	C8	ADE	71	-9.537	-27.449	3.287	12.01	0.26
ATOM	1289	H8	ADE	71	-8.745	-27.799	2.656	1.01	0.06
ATOM	1290	N7	ADE	71	-9.462	-27.493	4.584	14.01	-0.54
ATOM	1291	C5	ADE	71	-10.658	-26.914	4.981	12.01	-0.10
ATOM	1292	C6	ADE	71	-11.201	-26.647	6.248	12.01	0.77
ATOM	1293	N6	ADE	71	-10.572	-26.997	7.370	14.01	-0.77
ATOM	1294	H61	ADE	71	-10.973	-26.803	8.276	1.01	0.32
ATOM	1295	H62	ADE	71	-9.723	-27.540	7.301	1.01	0.34
ATOM	1296	N1	ADE	71	-12.381	-26.005	6.325	14.01	-0.77
ATOM	1297	C2	ADE	71	-12.994	-25.655	5.195	12.01	0.66
ATOM	1298	H2	ADE	71	-13.948	-25.163	5.308	1.01	-0.03
ATOM	1299	N3	ADE	71	-12.594	-25.860	3.942	14.01	-0.73
ATOM	1300	C4	ADE	71	-11.402	-26.514	3.900	12.01	0.55
ATOM	1301	C3'	ADE	71	-10.178	-25.915	-0.729	12.01	0.23
ATOM	1302	H3'	ADE	71	-9.368	-25.921	-1.460	1.01	0.03
ATOM	1303	C2'	ADE	71	-9.684	-26.080	0.702	12.01	-0.31
ATOM	1304	H2' 1	ADE	71	-8.942	-26.874	0.712	1.01	0.08
ATOM	1305	H2' 2	ADE	71	-9.276	-25.201	1.174	1.01	0.08
ATOM	1306	O3'	ADE	71	-10.927	-24.730	-0.872	16.00	-0.51
ATOM	1307	P	GUA	72	-10.235	-23.283	-1.044	30.97	1.39
ATOM	1308	OP1	GUA	72	-8.987	-23.231	-0.240	16.00	-0.85
ATOM	1309	OP2	GUA	72	-10.212	-22.923	-2.477	16.00	-0.85
ATOM	1310	O5'	GUA	72	-11.324	-22.380	-0.296	16.00	-0.51
ATOM	1311	C5'	GUA	72	-12.682	-22.364	-0.693	12.01	0.12
ATOM	1312	H5' 1	GUA	72	-12.807	-21.740	-1.579	1.01	0.02
ATOM	1313	H5' 2	GUA	72	-13.032	-23.371	-0.920	1.01	0.02
ATOM	1314	C4'	GUA	72	-13.534	-21.836	0.464	12.01	0.04
ATOM	1315	H4'	GUA	72	-14.587	-21.925	0.193	1.01	0.06
ATOM	1316	O4'	GUA	72	-13.259	-22.606	1.629	16.00	-0.37
ATOM	1317	C1'	GUA	72	-12.804	-21.775	2.680	12.01	0.38
ATOM	1318	H1'	GUA	72	-13.655	-21.460	3.286	1.01	0.01
ATOM	1319	N9	GUA	72	-11.770	-22.463	3.493	14.01	-0.04
ATOM	1320	C8	GUA	72	-10.594	-23.030	3.076	12.01	0.27
ATOM	1321	H8	GUA	72	-10.306	-23.079	2.042	1.01	0.05
ATOM	1322	N7	GUA	72	-9.827	-23.477	4.031	14.01	-0.54
ATOM	1323	C5	GUA	72	-10.573	-23.226	5.181	12.01	-0.06
ATOM	1324	C6	GUA	72	-10.288	-23.517	6.551	12.01	0.69
ATOM	1325	O6	GUA	72	-9.273	-24.031	7.019	16.00	-0.46

981				982			
ATOM	1326	N1	GUA	72	-11.327	-23.158	7.403 14.01 -0.73
ATOM	1327	H1	GUA	72	-11.202	-23.378	8.386 1.01 0.34
ATOM	1328	C2	GUA	72	-12.511	-22.578	6.989 12.01 0.87
ATOM	1329	N2	GUA	72	-13.399	-22.231	7.920 14.01 -0.78
ATOM	1330	H21	GUA	72	-13.213	-22.367	8.900 1.01 0.33
ATOM	1331	H22	GUA	72	-14.262	-21.796	7.631 1.01 0.34
ATOM	1332	N3	GUA	72	-12.770	-22.279	5.709 14.01 -0.71
ATOM	1333	C4	GUA	72	-11.773	-22.633	4.857 12.01 0.39
ATOM	1334	C3'	GUA	72	-13.199	-20.383	0.811 12.01 0.23
ATOM	1335	H3'	GUA	72	-12.746	-19.865	-0.035 1.01 0.03
ATOM	1336	C2'	GUA	72	-12.211	-20.568	1.958 12.01 -0.31
ATOM	1337	H2' 1	GUA	72	-11.218	-20.789	1.569 1.01 0.08
ATOM	1338	H2' 2	GUA	72	-12.166	-19.688	2.586 1.01 0.08
ATOM	1339	O3'	GUA	72	-14.385	-19.717	1.208 16.00 -0.51
ATOM	1340	P	GUA	73	-14.405	-18.152	1.603 30.97 1.39
ATOM	1341	OP1	GUA	73	-13.129	-17.539	1.171 16.00 -0.85
ATOM	1342	OP2	GUA	73	-15.689	-17.577	1.149 16.00 -0.85
ATOM	1343	O5'	GUA	73	-14.413	-18.206	3.211 16.00 -0.51
ATOM	1344	C5'	GUA	73	-15.547	-18.671	3.919 12.01 0.12
ATOM	1345	H5' 1	GUA	73	-16.417	-18.060	3.674 1.01 0.02
ATOM	1346	H5' 2	GUA	73	-15.752	-19.706	3.643 1.01 0.02
ATOM	1347	C4'	GUA	73	-15.305	-18.599	5.428 12.01 0.04
ATOM	1348	H4'	GUA	73	-16.183	-18.995	5.940 1.01 0.06
ATOM	1349	O4'	GUA	73	-14.172	-19.382	5.768 16.00 -0.37
ATOM	1350	C1'	GUA	73	-13.368	-18.664	6.678 12.01 0.38
ATOM	1351	H1'	GUA	73	-13.784	-18.739	7.683 1.01 0.01
ATOM	1352	N9	GUA	73	-11.973	-19.154	6.625 14.01 -0.04
ATOM	1353	C8	GUA	73	-11.138	-19.249	5.541 12.01 0.27
ATOM	1354	H8	GUA	73	-11.400	-18.893	4.561 1.01 0.05
ATOM	1355	N7	GUA	73	-9.993	-19.822	5.786 14.01 -0.54
ATOM	1356	C5	GUA	73	-10.065	-20.112	7.142 12.01 -0.06
ATOM	1357	C6	GUA	73	-9.114	-20.752	7.985 12.01 0.69
ATOM	1358	O6	GUA	73	-7.999	-21.160	7.665 16.00 -0.46
ATOM	1359	N1	GUA	73	-9.573	-20.894	9.291 14.01 -0.73
ATOM	1360	H1	GUA	73	-8.948	-21.363	9.936 1.01 0.34
ATOM	1361	C2	GUA	73	-10.803	-20.451	9.740 12.01 0.87
ATOM	1362	N2	GUA	73	-11.083	-20.573	11.039 14.01 -0.78
ATOM	1363	H21	GUA	73	-10.416	-20.957	11.690 1.01 0.33
ATOM	1364	H22	GUA	73	-11.968	-20.223	11.376 1.01 0.34
ATOM	1365	N3	GUA	73	-11.693	-19.841	8.950 14.01 -0.71
ATOM	1366	C4	GUA	73	-11.268	-19.705	7.666 12.01 0.39
ATOM	1367	C3'	GUA	73	-15.008	-17.173	5.928 12.01 0.23
ATOM	1368	H3'	GUA	73	-15.269	-16.420	5.182 1.01 0.03
ATOM	1369	C2'	GUA	73	-13.498	-17.237	6.159 12.01 -0.31
ATOM	1370	H2' 1	GUA	73	-12.982	-17.118	5.206 1.01 0.08
ATOM	1371	H2' 2	GUA	73	-13.138	-16.499	6.873 1.01 0.08
ATOM	1372	O3'	GUA	73	-15.743	-16.957	7.122 16.00 -0.51
ATOM	1373	P	GUA	74	-15.724	-15.554	7.920 30.97 1.39
ATOM	1374	OP1	GUA	74	-14.929	-14.571	7.151 16.00 -0.85
ATOM	1375	OP2	GUA	74	-17.112	-15.228	8.315 16.00 -0.85

	983					984		
ATOM	1376	O5'	GUA	74	-14.897	-15.943	9.248	16.00 -0.51
ATOM	1377	C5'	GUA	74	-15.451	-16.814	10.218	12.01 0.12
ATOM	1378	H5' 1	GUA	74	-16.386	-16.399	10.597	1.01 0.02
ATOM	1379	H5' 2	GUA	74	-15.656	-17.785	9.764	1.01 0.02
ATOM	1380	C4'	GUA	74	-14.493	-17.013	11.396	12.01 0.04
ATOM	1381	H4'	GUA	74	-14.962	-17.694	12.110	1.01 0.06
ATOM	1382	O4'	GUA	74	-13.282	-17.588	10.935	16.00 -0.37
ATOM	1383	C1'	GUA	74	-12.181	-16.899	11.489	12.01 0.38
ATOM	1384	H1'	GUA	74	-11.955	-17.286	12.483	1.01 0.01
ATOM	1385	N9	GUA	74	-11.027	-17.003	10.571	14.01 -0.04
ATOM	1386	C8	GUA	74	-10.963	-16.636	9.250	12.01 0.27
ATOM	1387	H8	GUA	74	-11.775	-16.143	8.739	1.01 0.05
ATOM	1388	N7	GUA	74	-9.843	-16.941	8.660	14.01 -0.54
ATOM	1389	C5	GUA	74	-9.106	-17.564	9.659	12.01 -0.06
ATOM	1390	C6	GUA	74	-7.823	-18.177	9.595	12.01 0.69
ATOM	1391	O6	GUA	74	-7.096	-18.288	8.612	16.00 -0.46
ATOM	1392	N1	GUA	74	-7.425	-18.718	10.812	14.01 -0.73
ATOM	1393	H1	GUA	74	-6.523	-19.181	10.829	1.01 0.34
ATOM	1394	C2	GUA	74	-8.193	-18.699	11.958	12.01 0.87
ATOM	1395	N2	GUA	74	-7.659	-19.213	13.068	14.01 -0.78
ATOM	1396	H21	GUA	74	-6.721	-19.573	13.079	1.01 0.33
ATOM	1397	H22	GUA	74	-8.204	-19.202	13.918	1.01 0.34
ATOM	1398	N3	GUA	74	-9.409	-18.140	12.017	14.01 -0.71
ATOM	1399	C4	GUA	74	-9.814	-17.596	10.837	12.01 0.39
ATOM	1400	C3'	GUA	74	-14.115	-15.701	12.102	12.01 0.23
ATOM	1401	H3'	GUA	74	-14.773	-14.879	11.818	1.01 0.03
ATOM	1402	C2'	GUA	74	-12.699	-15.468	11.582	12.01 -0.31
ATOM	1403	H2' 1	GUA	74	-12.762	-15.007	10.597	1.01 0.08
ATOM	1404	H2' 2	GUA	74	-12.096	-14.848	12.243	1.01 0.08
ATOM	1405	O3'	GUA	74	-14.173	-15.905	13.503	16.00 -0.51
ATOM	1406	P	THY	75	-13.842	-14.741	14.573	30.97 1.39
ATOM	1407	OP1	THY	75	-13.761	-13.444	13.864	16.00 -0.85
ATOM	1408	OP2	THY	75	-14.757	-14.896	15.725	16.00 -0.85
ATOM	1409	O5'	THY	75	-12.360	-15.153	15.045	16.00 -0.51
ATOM	1410	C5'	THY	75	-12.144	-16.350	15.768	12.01 0.12
ATOM	1411	H5' 1	THY	75	-12.653	-16.302	16.732	1.01 0.02
ATOM	1412	H5' 2	THY	75	-12.534	-17.198	15.204	1.01 0.02
ATOM	1413	C4'	THY	75	-10.649	-16.573	16.000	12.01 0.04
ATOM	1414	H4'	THY	75	-10.512	-17.533	16.500	1.01 0.06
ATOM	1415	O4'	THY	75	-9.977	-16.604	14.754	16.00 -0.37
ATOM	1416	C1'	THY	75	-8.717	-15.991	14.901	12.01 0.38
ATOM	1417	H1'	THY	75	-8.057	-16.668	15.444	1.01 0.01
ATOM	1418	N1	THY	75	-8.184	-15.584	13.572	14.01 -0.22
ATOM	1419	C6	THY	75	-8.949	-14.821	12.717	12.01 0.03
ATOM	1420	H6	THY	75	-9.934	-14.505	13.032	1.01 0.13
ATOM	1421	C5	THY	75	-8.510	-14.511	11.471	12.01 -0.18
ATOM	1422	C7	THY	75	-9.426	-13.627	10.645	12.01 -0.38
ATOM	1423	H71	THY	75	-9.586	-12.678	11.158	1.01 0.11
ATOM	1424	H72	THY	75	-8.979	-13.426	9.671	1.01 0.11
ATOM	1425	H73	THY	75	-10.386	-14.118	10.492	1.01 0.11

985					986				
ATOM	1426	C4	THY	75	-7.240	-14.996	10.971	12.01	0.81
ATOM	1427	O4	THY	75	-6.793	-14.820	9.841	16.00	-0.46
ATOM	1428	N3	THY	75	-6.523	-15.737	11.893	14.01	-0.85
ATOM	1429	H3	THY	75	-5.637	-16.125	11.590	1.01	0.35
ATOM	1430	C2	THY	75	-6.924	-16.042	13.185	12.01	0.85
ATOM	1431	O2	THY	75	-6.179	-16.687	13.920	16.00	-0.49
ATOM	1432	C3'	THY	75	-9.982	-15.458	16.825	12.01	0.23
ATOM	1433	H3'	THY	75	-10.714	-14.748	17.213	1.01	0.03
ATOM	1434	C2'	THY	75	-9.066	-14.801	15.790	12.01	-0.31
ATOM	1435	H2' 1	THY	75	-9.641	-14.048	15.251	1.01	0.08
ATOM	1436	H2' 2	THY	75	-8.182	-14.347	16.230	1.01	0.08
ATOM	1437	O3'	THY	75	-9.268	-16.056	17.894	16.00	-0.51
ATOM	1438	P	THY	76	-8.470	-15.200	19.010	30.97	1.39
ATOM	1439	OP1	THY	76	-8.665	-13.756	18.750	16.00	-0.85
ATOM	1440	OP2	THY	76	-8.785	-15.761	20.342	16.00	-0.85
ATOM	1441	O5'	THY	76	-6.944	-15.568	18.657	16.00	-0.51
ATOM	1442	C5'	THY	76	-6.460	-16.886	18.836	12.01	0.12
ATOM	1443	H5' 1	THY	76	-6.481	-17.152	19.893	1.01	0.02
ATOM	1444	H5' 2	THY	76	-7.090	-17.586	18.283	1.01	0.02
ATOM	1445	C4'	THY	76	-5.030	-17.008	18.307	12.01	0.04
ATOM	1446	H4'	THY	76	-4.725	-18.052	18.380	1.01	0.06
ATOM	1447	O4'	THY	76	-5.005	-16.606	16.948	16.00	-0.37
ATOM	1448	C1'	THY	76	-3.915	-15.740	16.722	12.01	0.38
ATOM	1449	H1'	THY	76	-3.015	-16.339	16.584	1.01	0.01
ATOM	1450	N1	THY	76	-4.219	-14.863	15.555	14.01	-0.22
ATOM	1451	C6	THY	76	-5.275	-13.980	15.601	12.01	0.03
ATOM	1452	H6	THY	76	-5.875	-13.926	16.497	1.01	0.13
ATOM	1453	C5	THY	76	-5.620	-13.236	14.520	12.01	-0.18
ATOM	1454	C7	THY	76	-6.781	-12.271	14.685	12.01	-0.38
ATOM	1455	H71	THY	76	-7.658	-12.665	14.173	1.01	0.11
ATOM	1456	H72	THY	76	-7.027	-12.104	15.734	1.01	0.11
ATOM	1457	H73	THY	76	-6.514	-11.314	14.236	1.01	0.11
ATOM	1458	C4	THY	76	-4.915	-13.361	13.263	12.01	0.81
ATOM	1459	O4	THY	76	-5.183	-12.748	12.234	16.00	-0.46
ATOM	1460	N3	THY	76	-3.884	-14.286	13.282	14.01	-0.85
ATOM	1461	H3	THY	76	-3.358	-14.419	12.425	1.01	0.35
ATOM	1462	C2	THY	76	-3.491	-15.041	14.376	12.01	0.85
ATOM	1463	O2	THY	76	-2.543	-15.817	14.277	16.00	-0.49
ATOM	1464	C3'	THY	76	-4.024	-16.116	19.052	12.01	0.23
ATOM	1465	H3'	THY	76	-4.442	-15.738	19.987	1.01	0.03
ATOM	1466	C2'	THY	76	-3.795	-14.985	18.047	12.01	-0.31
ATOM	1467	H2' 1	THY	76	-4.587	-14.253	18.188	1.01	0.08
ATOM	1468	H2' 2	THY	76	-2.829	-14.493	18.154	1.01	0.08
ATOM	1469	O3'	THY	76	-2.863	-16.886	19.315	16.00	-0.51
ATOM	1470	P	ADE	77	-1.597	-16.310	20.131	30.97	1.39
ATOM	1471	OP1	ADE	77	-2.040	-15.243	21.053	16.00	-0.85
ATOM	1472	OP2	ADE	77	-0.835	-17.459	20.672	16.00	-0.85
ATOM	1473	O5'	ADE	77	-0.706	-15.652	18.971	16.00	-0.51
ATOM	1474	C5'	ADE	77	-0.114	-16.489	18.005	12.01	0.12
ATOM	1475	H5' 1	ADE	77	0.658	-17.108	18.466	1.01	0.02

	987						988
ATOM	1476	H5' 2	ADE	77	-0.887	-17.131	17.588 1.01 0.02
ATOM	1477	C4'	ADE	77	0.498	-15.704	16.852 12.01 0.04
ATOM	1478	H4'	ADE	77	0.855	-16.431	16.124 1.01 0.06
ATOM	1479	O4'	ADE	77	-0.445	-14.904	16.185 16.00 -0.37
ATOM	1480	C1'	ADE	77	0.310	-13.991	15.427 12.01 0.38
ATOM	1481	H1'	ADE	77	0.864	-14.517	14.648 1.01 0.01
ATOM	1482	N9	ADE	77	-0.582	-12.973	14.843 14.01 -0.07
ATOM	1483	C8	ADE	77	-1.707	-12.405	15.390 12.01 0.26
ATOM	1484	H8	ADE	77	-1.991	-12.538	16.423 1.01 0.06
ATOM	1485	N7	ADE	77	-2.436	-11.738	14.539 14.01 -0.54
ATOM	1486	C5	ADE	77	-1.728	-11.852	13.348 12.01 -0.10
ATOM	1487	C6	ADE	77	-1.973	-11.404	12.036 12.01 0.77
ATOM	1488	N6	ADE	77	-3.078	-10.738	11.701 14.01 -0.77
ATOM	1489	H61	ADE	77	-3.246	-10.482	10.737 1.01 0.32
ATOM	1490	H62	ADE	77	-3.790	-10.589	12.401 1.01 0.34
ATOM	1491	N1	ADE	77	-1.051	-11.649	11.087 14.01 -0.77
ATOM	1492	C2	ADE	77	0.048	-12.325	11.412 12.01 0.66
ATOM	1493	H2	ADE	77	0.743	-12.508	10.607 1.01 -0.03
ATOM	1494	N3	ADE	77	0.368	-12.849	12.591 14.01 -0.73
ATOM	1495	C4	ADE	77	-0.573	-12.566	13.532 12.01 0.55
ATOM	1496	C3'	ADE	77	1.649	-14.760	17.228 12.01 0.23
ATOM	1497	H3'	ADE	77	1.702	-14.594	18.304 1.01 0.03
ATOM	1498	C2'	ADE	77	1.266	-13.466	16.494 12.01 -0.31
ATOM	1499	H2' 1	ADE	77	0.733	-12.805	17.179 1.01 0.08
ATOM	1500	H2' 2	ADE	77	2.121	-12.948	16.062 1.01 0.08
ATOM	1501	O3'	ADE	77	2.816	-15.383	16.724 16.00 -0.51
ATOM	1502	P	GUA	78	4.312	-14.951	17.118 30.97 1.39
ATOM	1503	OP1	GUA	78	4.314	-14.488	18.523 16.00 -0.85
ATOM	1504	OP2	GUA	78	5.196	-16.065	16.701 16.00 -0.85
ATOM	1505	O5'	GUA	78	4.578	-13.698	16.143 16.00 -0.51
ATOM	1506	C5'	GUA	78	4.921	-13.913	14.789 12.01 0.12
ATOM	1507	H5' 1	GUA	78	5.950	-14.269	14.727 1.01 0.02
ATOM	1508	H5' 2	GUA	78	4.259	-14.665	14.363 1.01 0.02
ATOM	1509	C4'	GUA	78	4.771	-12.649	13.941 12.01 0.04
ATOM	1510	H4'	GUA	78	5.056	-12.905	12.919 1.01 0.06
ATOM	1511	O4'	GUA	78	3.435	-12.197	13.897 16.00 -0.37
ATOM	1512	C1'	GUA	78	3.488	-10.902	13.349 12.01 0.38
ATOM	1513	H1'	GUA	78	3.801	-10.948	12.304 1.01 0.01
ATOM	1514	N9	GUA	78	2.193	-10.204	13.497 14.01 -0.04
ATOM	1515	C8	GUA	78	1.436	-10.030	14.628 12.01 0.27
ATOM	1516	H8	GUA	78	1.748	-10.388	15.599 1.01 0.05
ATOM	1517	N7	GUA	78	0.307	-9.409	14.424 14.01 -0.54
ATOM	1518	C5	GUA	78	0.312	-9.145	13.057 12.01 -0.06
ATOM	1519	C6	GUA	78	-0.664	-8.506	12.230 12.01 0.69
ATOM	1520	O6	GUA	78	-1.739	-8.010	12.559 16.00 -0.46
ATOM	1521	N1	GUA	78	-0.297	-8.489	10.889 14.01 -0.73
ATOM	1522	H1	GUA	78	-0.955	-8.084	10.232 1.01 0.34
ATOM	1523	C2	GUA	78	0.876	-9.020	10.396 12.01 0.87
ATOM	1524	N2	GUA	78	1.102	-8.896	9.090 14.01 -0.78
ATOM	1525	H21	GUA	78	0.455	-8.395	8.507 1.01 0.33

989				990				
ATOM	1526	H22 GUA	78	1.931	-9.309	8.690	1.01	0.34
ATOM	1527	N3 GUA	78	1.800	-9.606	11.166	14.01	-0.71
ATOM	1528	C4 GUA	78	1.460	-9.638	12.482	12.01	0.39
ATOM	1529	C3' GUA	78	5.587	-11.428	14.396	12.01	0.23
ATOM	1530	H3' GUA	78	5.857	-11.482	15.450	1.01	0.03
ATOM	1531	C2' GUA	78	4.589	-10.275	14.197	12.01	-0.31
ATOM	1532	H2' 1 GUA	78	4.187	-9.991	15.171	1.01	0.08
ATOM	1533	H2' 2 GUA	78	5.013	-9.401	13.709	1.01	0.08
ATOM	1534	O3' GUA	78	6.753	-11.375	13.589	16.00	-0.51
ATOM	1535	P GUA	79	7.789	-10.138	13.595	30.97	1.39
ATOM	1536	OP1 GUA	79	7.667	-9.415	14.880	16.00	-0.85
ATOM	1537	OP2 GUA	79	9.109	-10.638	13.150	16.00	-0.85
ATOM	1538	O5' GUA	79	7.178	-9.217	12.423	16.00	-0.51
ATOM	1539	C5' GUA	79	7.090	-9.702	11.096	12.01	0.12
ATOM	1540	H5' 1 GUA	79	8.090	-9.839	10.684	1.01	0.02
ATOM	1541	H5' 2 GUA	79	6.566	-10.659	11.083	1.01	0.02
ATOM	1542	C4' GUA	79	6.307	-8.725	10.216	12.01	0.04
ATOM	1543	H4' GUA	79	6.193	-9.166	9.224	1.01	0.06
ATOM	1544	O4' GUA	79	5.017	-8.499	10.755	16.00	-0.37
ATOM	1545	C1' GUA	79	4.634	-7.178	10.449	12.01	0.38
ATOM	1546	H1' GUA	79	4.363	-7.094	9.395	1.01	0.01
ATOM	1547	N9 GUA	79	3.539	-6.743	11.345	14.01	-0.04
ATOM	1548	C8 GUA	79	3.472	-6.843	12.711	12.01	0.27
ATOM	1549	H8 GUA	79	4.280	-7.243	13.309	1.01	0.05
ATOM	1550	N7 GUA	79	2.350	-6.422	13.224	14.01	-0.54
ATOM	1551	C5 GUA	79	1.614	-6.006	12.120	12.01	-0.06
ATOM	1552	C6 GUA	79	0.293	-5.471	12.040	12.01	0.69
ATOM	1553	O6 GUA	79	-0.486	-5.225	12.958	16.00	-0.46
ATOM	1554	N1 GUA	79	-0.108	-5.233	10.731	14.01	-0.73
ATOM	1555	H1 GUA	79	-1.059	-4.906	10.600	1.01	0.34
ATOM	1556	C2 GUA	79	0.679	-5.456	9.621	12.01	0.87
ATOM	1557	N2 GUA	79	0.162	-5.149	8.430	14.01	-0.78
ATOM	1558	H21 GUA	79	-0.752	-4.736	8.355	1.01	0.33
ATOM	1559	H22 GUA	79	0.706	-5.330	7.600	1.01	0.34
ATOM	1560	N3 GUA	79	1.928	-5.937	9.691	14.01	-0.71
ATOM	1561	C4 GUA	79	2.334	-6.200	10.964	12.01	0.39
ATOM	1562	C3' GUA	79	6.971	-7.343	10.095	12.01	0.23
ATOM	1563	H3' GUA	79	7.910	-7.297	10.647	1.01	0.03
ATOM	1564	C2' GUA	79	5.927	-6.425	10.736	12.01	-0.31
ATOM	1565	H2' 1 GUA	79	6.103	-6.387	11.812	1.01	0.08
ATOM	1566	H2' 2 GUA	79	5.922	-5.419	10.320	1.01	0.08
ATOM	1567	O3' GUA	79	7.199	-7.083	8.719	16.00	-0.51
ATOM	1568	P GUA	80	7.919	-5.739	8.188	30.97	1.39
ATOM	1569	OP1 GUA	80	8.674	-5.123	9.302	16.00	-0.85
ATOM	1570	OP2 GUA	80	8.607	-6.053	6.916	16.00	-0.85
ATOM	1571	O5' GUA	80	6.655	-4.802	7.854	16.00	-0.51
ATOM	1572	C5' GUA	80	5.787	-5.113	6.781	12.01	0.12
ATOM	1573	H5' 1 GUA	80	6.337	-5.088	5.839	1.01	0.02
ATOM	1574	H5' 2 GUA	80	5.365	-6.110	6.919	1.01	0.02
ATOM	1575	C4' GUA	80	4.645	-4.098	6.715	12.01	0.04

991				992				
ATOM	1576	H4' GUA	80	3.996	-4.344	5.876	1.01	0.06
ATOM	1577	O4' GUA	80	3.882	-4.153	7.906	16.00	-0.37
ATOM	1578	C1' GUA	80	3.464	-2.846	8.220	12.01	0.38
ATOM	1579	H1' GUA	80	2.670	-2.535	7.538	1.01	0.01
ATOM	1580	N9 GUA	80	3.029	-2.766	9.629	14.01	-0.04
ATOM	1581	C8 GUA	80	3.733	-3.085	10.761	12.01	0.27
ATOM	1582	H8 GUA	80	4.761	-3.414	10.732	1.01	0.05
ATOM	1583	N7 GUA	80	3.052	-2.960	11.866	14.01	-0.54
ATOM	1584	C5 GUA	80	1.796	-2.541	11.439	12.01	-0.06
ATOM	1585	C6 GUA	80	0.603	-2.289	12.183	12.01	0.69
ATOM	1586	O6 GUA	80	0.436	-2.352	13.399	16.00	-0.46
ATOM	1587	N1 GUA	80	-0.474	-1.969	11.365	14.01	-0.73
ATOM	1588	H1 GUA	80	-1.367	-1.852	11.830	1.01	0.34
ATOM	1589	C2 GUA	80	-0.415	-1.879	9.991	12.01	0.87
ATOM	1590	N2 GUA	80	-1.539	-1.578	9.338	14.01	-0.78
ATOM	1591	H21 GUA	80	-2.397	-1.408	9.833	1.01	0.33
ATOM	1592	H22 GUA	80	-1.528	-1.553	8.329	1.01	0.34
ATOM	1593	N3 GUA	80	0.707	-2.094	9.290	14.01	-0.71
ATOM	1594	C4 GUA	80	1.771	-2.429	10.069	12.01	0.39
ATOM	1595	C3' GUA	80	5.133	-2.643	6.599	12.01	0.23
ATOM	1596	H3' GUA	80	6.208	-2.569	6.430	1.01	0.03
ATOM	1597	C2' GUA	80	4.738	-2.050	7.948	12.01	-0.31
ATOM	1598	H2' 1 GUA	80	5.508	-2.280	8.685	1.01	0.08
ATOM	1599	H2' 2 GUA	80	4.558	-0.976	7.899	1.01	0.08
ATOM	1600	O3' GUA	80	4.438	-1.972	5.567	16.00	-0.51
ATOM	1601	H03' GUA	80	4.683	-2.371	4.729	1.01	0.31
ATOM	1602	H05' CYT	81	-9.692	-0.268	14.346	1.01	0.28
ATOM	1603	O5' CYT	81	-9.267	0.566	14.556	16.00	-0.40
ATOM	1604	C5' CYT	81	-9.095	1.304	13.364	12.01	0.12
ATOM	1605	H5' 1 CYT	81	-8.686	2.282	13.618	1.01	0.02
ATOM	1606	H5' 2 CYT	81	-10.063	1.442	12.880	1.01	0.02
ATOM	1607	C4' CYT	81	-8.134	0.599	12.400	12.01	0.04
ATOM	1608	H4' CYT	81	-7.942	1.257	11.550	1.01	0.06
ATOM	1609	O4' CYT	81	-6.899	0.312	13.023	16.00	-0.37
ATOM	1610	C1' CYT	81	-6.239	-0.616	12.192	12.01	0.38
ATOM	1611	H1' CYT	81	-5.943	-0.122	11.266	1.01	0.01
ATOM	1612	N1 CYT	81	-5.115	-1.284	12.893	14.01	-0.19
ATOM	1613	C6 CYT	81	-5.288	-1.774	14.163	12.01	0.18
ATOM	1614	H6 CYT	81	-6.234	-1.625	14.664	1.01	0.10
ATOM	1615	C5 CYT	81	-4.310	-2.458	14.797	12.01	-0.58
ATOM	1616	H5 CYT	81	-4.511	-2.839	15.785	1.01	0.15
ATOM	1617	C4 CYT	81	-3.071	-2.628	14.091	12.01	0.93
ATOM	1618	N4 CYT	81	-2.051	-3.278	14.655	14.01	-0.83
ATOM	1619	H41 CYT	81	-2.131	-3.660	15.585	1.01	0.33
ATOM	1620	H42 CYT	81	-1.188	-3.393	14.133	1.01	0.35
ATOM	1621	N3 CYT	81	-2.914	-2.157	12.848	14.01	-0.86
ATOM	1622	C2 CYT	81	-3.919	-1.495	12.211	12.01	0.86
ATOM	1623	O2 CYT	81	-3.756	-1.107	11.056	16.00	-0.51
ATOM	1624	C3' CYT	81	-8.623	-0.762	11.883	12.01	0.23
ATOM	1625	H3' CYT	81	-9.325	-1.211	12.585	1.01	0.03

993

994

ATOM	1626	C2' CYT	81	-7.350	-1.612	11.888	12.01	-0.31
ATOM	1627	H2' 1 CYT	81	-7.440	-2.378	12.659	1.01	0.08
ATOM	1628	H2' 2 CYT	81	-7.164	-2.080	10.931	1.01	0.08
ATOM	1629	O3' CYT	81	-9.198	-0.606	10.595	16.00	-0.51
ATOM	1630	P CYT	82	-9.790	-1.853	9.750	30.97	1.39
ATOM	1631	OP1 CYT	82	-10.039	-2.969	10.690	16.00	-0.85
ATOM	1632	OP2 CYT	82	-10.888	-1.349	8.897	16.00	-0.85
ATOM	1633	O5' CYT	82	-8.555	-2.272	8.795	16.00	-0.51
ATOM	1634	C5' CYT	82	-8.126	-1.438	7.733	12.01	0.12
ATOM	1635	H5' 1 CYT	82	-8.929	-1.321	7.004	1.01	0.02
ATOM	1636	H5' 2 CYT	82	-7.862	-0.456	8.128	1.01	0.02
ATOM	1637	C4' CYT	82	-6.895	-2.031	7.032	12.01	0.04
ATOM	1638	H4' CYT	82	-6.543	-1.324	6.279	1.01	0.06
ATOM	1639	O4' CYT	82	-5.866	-2.232	7.981	16.00	-0.37
ATOM	1640	C1' CYT	82	-5.174	-3.435	7.714	12.01	0.38
ATOM	1641	H1' CYT	82	-4.402	-3.257	6.965	1.01	0.01
ATOM	1642	N1 CYT	82	-4.675	-3.974	9.003	14.01	-0.19
ATOM	1643	C6 CYT	82	-5.549	-4.095	10.049	12.01	0.18
ATOM	1644	H6 CYT	82	-6.585	-3.833	9.905	1.01	0.10
ATOM	1645	C5 CYT	82	-5.163	-4.551	11.256	12.01	-0.58
ATOM	1646	H5 CYT	82	-5.922	-4.603	12.018	1.01	0.15
ATOM	1647	C4 CYT	82	-3.783	-4.913	11.397	12.01	0.93
ATOM	1648	N4 CYT	82	-3.349	-5.431	12.547	14.01	-0.83
ATOM	1649	H41 CYT	82	-3.983	-5.558	13.320	1.01	0.33
ATOM	1650	H42 CYT	82	-2.376	-5.701	12.645	1.01	0.35
ATOM	1651	N3 CYT	82	-2.925	-4.799	10.372	14.01	-0.86
ATOM	1652	C2 CYT	82	-3.338	-4.340	9.154	12.01	0.86
ATOM	1653	O2 CYT	82	-2.542	-4.275	8.218	16.00	-0.51
ATOM	1654	C3' CYT	82	-7.160	-3.394	6.372	12.01	0.23
ATOM	1655	H3' CYT	82	-8.195	-3.695	6.531	1.01	0.03
ATOM	1656	C2' CYT	82	-6.260	-4.348	7.148	12.01	-0.31
ATOM	1657	H2' 1 CYT	82	-6.866	-4.815	7.924	1.01	0.08
ATOM	1658	H2' 2 CYT	82	-5.832	-5.125	6.527	1.01	0.08
ATOM	1659	O3' CYT	82	-6.830	-3.324	4.991	16.00	-0.51
ATOM	1660	P CYT	83	-7.049	-4.564	3.973	30.97	1.39
ATOM	1661	OP1 CYT	83	-8.004	-5.513	4.586	16.00	-0.85
ATOM	1662	OP2 CYT	83	-7.321	-4.013	2.627	16.00	-0.85
ATOM	1663	O5' CYT	83	-5.602	-5.274	3.940	16.00	-0.51
ATOM	1664	C5' CYT	83	-4.503	-4.683	3.269	12.01	0.12
ATOM	1665	H5' 1 CYT	83	-4.695	-4.638	2.196	1.01	0.02
ATOM	1666	H5' 2 CYT	83	-4.346	-3.671	3.646	1.01	0.02
ATOM	1667	C4' CYT	83	-3.235	-5.507	3.523	12.01	0.04
ATOM	1668	H4' CYT	83	-2.370	-4.987	3.109	1.01	0.06
ATOM	1669	O4' CYT	83	-3.058	-5.641	4.917	16.00	-0.37
ATOM	1670	C1' CYT	83	-2.421	-6.864	5.206	12.01	0.38
ATOM	1671	H1' CYT	83	-1.347	-6.753	5.046	1.01	0.01
ATOM	1672	N1 CYT	83	-2.802	-7.273	6.583	14.01	-0.19
ATOM	1673	C6 CYT	83	-4.121	-7.241	6.955	12.01	0.18
ATOM	1674	H6 CYT	83	-4.872	-7.035	6.209	1.01	0.10
ATOM	1675	C5 CYT	83	-4.508	-7.473	8.227	12.01	-0.58

995					996				
ATOM	1676	H5	CYT	83	-5.561	-7.415	8.458	1.01	0.15
ATOM	1677	C4	CYT	83	-3.472	-7.756	9.177	12.01	0.93
ATOM	1678	N4	CYT	83	-3.787	-7.960	10.457	14.01	-0.83
ATOM	1679	H41	CYT	83	-4.751	-7.920	10.749	1.01	0.33
ATOM	1680	H42	CYT	83	-3.057	-8.110	11.142	1.01	0.35
ATOM	1681	N3	CYT	83	-2.186	-7.838	8.803	14.01	-0.86
ATOM	1682	C2	CYT	83	-1.818	-7.621	7.505	12.01	0.86
ATOM	1683	O2	CYT	83	-0.645	-7.749	7.164	16.00	-0.51
ATOM	1684	C3'	CYT	83	-3.303	-6.934	2.951	12.01	0.23
ATOM	1685	H3'	CYT	83	-4.309	-7.151	2.592	1.01	0.03
ATOM	1686	C2'	CYT	83	-3.008	-7.816	4.166	12.01	-0.31
ATOM	1687	H2' 1	CYT	83	-3.952	-8.242	4.502	1.01	0.08
ATOM	1688	H2' 2	CYT	83	-2.307	-8.615	3.955	1.01	0.08
ATOM	1689	O3'	CYT	83	-2.351	-7.076	1.904	16.00	-0.51
ATOM	1690	P	THY	84	-2.172	-8.437	1.040	30.97	1.39
ATOM	1691	OP1	THY	84	-3.451	-9.185	1.019	16.00	-0.85
ATOM	1692	OP2	THY	84	-1.512	-8.106	-0.240	16.00	-0.85
ATOM	1693	O5'	THY	84	-1.136	-9.316	1.900	16.00	-0.51
ATOM	1694	C5'	THY	84	0.193	-8.878	2.118	12.01	0.12
ATOM	1695	H5' 1	THY	84	0.751	-8.877	1.183	1.01	0.02
ATOM	1696	H5' 2	THY	84	0.184	-7.864	2.521	1.01	0.02
ATOM	1697	C4'	THY	84	0.880	-9.794	3.132	12.01	0.04
ATOM	1698	H4'	THY	84	1.896	-9.439	3.311	1.01	0.06
ATOM	1699	O4'	THY	84	0.166	-9.732	4.349	16.00	-0.37
ATOM	1700	C1'	THY	84	0.298	-10.960	5.021	12.01	0.38
ATOM	1701	H1'	THY	84	1.305	-11.042	5.433	1.01	0.01
ATOM	1702	N1	THY	84	-0.780	-11.058	6.041	14.01	-0.22
ATOM	1703	C6	THY	84	-2.098	-10.915	5.671	12.01	0.03
ATOM	1704	H6	THY	84	-2.339	-10.807	4.625	1.01	0.13
ATOM	1705	C5	THY	84	-3.089	-10.873	6.593	12.01	-0.18
ATOM	1706	C7	THY	84	-4.509	-10.764	6.072	12.01	-0.38
ATOM	1707	H71	THY	84	-5.037	-9.983	6.619	1.01	0.11
ATOM	1708	H72	THY	84	-4.543	-10.532	5.007	1.01	0.11
ATOM	1709	H73	THY	84	-5.017	-11.713	6.241	1.01	0.11
ATOM	1710	C4	THY	84	-2.802	-10.951	8.008	12.01	0.81
ATOM	1711	O4	THY	84	-3.635	-10.875	8.905	16.00	-0.46
ATOM	1712	N3	THY	84	-1.460	-11.120	8.302	14.01	-0.85
ATOM	1713	H3	THY	84	-1.215	-11.214	9.280	1.01	0.35
ATOM	1714	C2	THY	84	-0.427	-11.212	7.382	12.01	0.85
ATOM	1715	O2	THY	84	0.721	-11.440	7.755	16.00	-0.49
ATOM	1716	C3'	THY	84	0.903	-11.281	2.731	12.01	0.23
ATOM	1717	H3'	THY	84	0.369	-11.445	1.795	1.01	0.03
ATOM	1718	C2'	THY	84	0.133	-11.957	3.874	12.01	-0.31
ATOM	1719	H2' 1	THY	84	-0.905	-12.049	3.561	1.01	0.08
ATOM	1720	H2' 2	THY	84	0.503	-12.940	4.151	1.01	0.08
ATOM	1721	O3'	THY	84	2.253	-11.703	2.602	16.00	-0.51
ATOM	1722	P	ADE	85	2.660	-13.194	2.129	30.97	1.39
ATOM	1723	OP1	ADE	85	1.617	-13.702	1.211	16.00	-0.85
ATOM	1724	OP2	ADE	85	4.072	-13.184	1.676	16.00	-0.85
ATOM	1725	O5'	ADE	85	2.574	-14.023	3.509	16.00	-0.51

997

998

ATOM	1726	C5'	ADE	85	3.427	-13.732	4.603	12.01	0.12
ATOM	1727	H5' 1	ADE	85	4.447	-14.020	4.347	1.01	0.02
ATOM	1728	H5' 2	ADE	85	3.412	-12.664	4.827	1.01	0.02
ATOM	1729	C4'	ADE	85	2.994	-14.497	5.861	12.01	0.04
ATOM	1730	H4'	ADE	85	3.757	-14.365	6.630	1.01	0.06
ATOM	1731	O4'	ADE	85	1.766	-14.024	6.384	16.00	-0.37
ATOM	1732	C1'	ADE	85	1.172	-15.093	7.090	12.01	0.38
ATOM	1733	H1'	ADE	85	1.749	-15.346	7.982	1.01	0.01
ATOM	1734	N9	ADE	85	-0.238	-14.801	7.427	14.01	-0.07
ATOM	1735	C8	ADE	85	-1.238	-14.346	6.604	12.01	0.26
ATOM	1736	H8	ADE	85	-1.114	-14.228	5.538	1.01	0.06
ATOM	1737	N7	ADE	85	-2.343	-14.036	7.223	14.01	-0.54
ATOM	1738	C5	ADE	85	-2.062	-14.328	8.553	12.01	-0.10
ATOM	1739	C6	ADE	85	-2.802	-14.191	9.743	12.01	0.77
ATOM	1740	N6	ADE	85	-4.025	-13.662	9.766	14.01	-0.77
ATOM	1741	H61	ADE	85	-4.528	-13.560	10.636	1.01	0.32
ATOM	1742	H62	ADE	85	-4.430	-13.317	8.907	1.01	0.34
ATOM	1743	N1	ADE	85	-2.263	-14.632	10.895	14.01	-0.77
ATOM	1744	C2	ADE	85	-1.040	-15.159	10.870	12.01	0.66
ATOM	1745	H2	ADE	85	-0.648	-15.483	11.822	1.01	-0.03
ATOM	1746	N3	ADE	85	-0.222	-15.292	9.831	14.01	-0.73
ATOM	1747	C4	ADE	85	-0.800	-14.849	8.682	12.01	0.55
ATOM	1748	C3'	ADE	85	2.761	-15.995	5.613	12.01	0.23
ATOM	1749	H3'	ADE	85	2.901	-16.248	4.563	1.01	0.03
ATOM	1750	C2'	ADE	85	1.306	-16.195	6.052	12.01	-0.31
ATOM	1751	H2' 1	ADE	85	0.630	-15.995	5.222	1.01	0.08
ATOM	1752	H2' 2	ADE	85	1.109	-17.181	6.469	1.01	0.08
ATOM	1753	O3'	ADE	85	3.664	-16.743	6.400	16.00	-0.51
ATOM	1754	P	ADE	86	3.787	-18.339	6.251	30.97	1.39
ATOM	1755	OP1	ADE	86	2.980	-18.759	5.082	16.00	-0.85
ATOM	1756	OP2	ADE	86	5.225	-18.684	6.316	16.00	-0.85
ATOM	1757	O5'	ADE	86	3.063	-18.892	7.574	16.00	-0.51
ATOM	1758	C5'	ADE	86	3.665	-18.717	8.836	12.01	0.12
ATOM	1759	H5' 1	ADE	86	4.568	-19.320	8.891	1.01	0.02
ATOM	1760	H5' 2	ADE	86	3.923	-17.667	8.981	1.01	0.02
ATOM	1761	C4'	ADE	86	2.729	-19.141	9.963	12.01	0.04
ATOM	1762	H4'	ADE	86	3.226	-18.889	10.893	1.01	0.06
ATOM	1763	O4'	ADE	86	1.507	-18.434	9.893	16.00	-0.37
ATOM	1764	C1'	ADE	86	0.438	-19.313	10.166	12.01	0.38
ATOM	1765	H1'	ADE	86	0.316	-19.440	11.242	1.01	0.01
ATOM	1766	N9	ADE	86	-0.784	-18.766	9.538	14.01	-0.07
ATOM	1767	C8	ADE	86	-1.004	-18.496	8.209	12.01	0.26
ATOM	1768	H8	ADE	86	-0.296	-18.744	7.434	1.01	0.06
ATOM	1769	N7	ADE	86	-2.129	-17.886	7.962	14.01	-0.54
ATOM	1770	C5	ADE	86	-2.705	-17.754	9.217	12.01	-0.10
ATOM	1771	C6	ADE	86	-3.914	-17.182	9.650	12.01	0.77
ATOM	1772	N6	ADE	86	-4.765	-16.601	8.803	14.01	-0.77
ATOM	1773	H61	ADE	86	-5.612	-16.162	9.139	1.01	0.32
ATOM	1774	H62	ADE	86	-4.550	-16.609	7.817	1.01	0.34
ATOM	1775	N1	ADE	86	-4.188	-17.168	10.966	14.01	-0.77

999

1000

ATOM	1776	C2	ADE	86	-3.303	-17.693	11.809	12.01	0.66
ATOM	1777	H2	ADE	86	-3.596	-17.696	12.847	1.01	-0.03
ATOM	1778	N3	ADE	86	-2.128	-18.260	11.536	14.01	-0.73
ATOM	1779	C4	ADE	86	-1.887	-18.266	10.193	12.01	0.55
ATOM	1780	C3'	ADE	86	2.381	-20.634	9.988	12.01	0.23
ATOM	1781	H3'	ADE	86	3.020	-21.208	9.316	1.01	0.03
ATOM	1782	C2'	ADE	86	0.923	-20.620	9.535	12.01	-0.31
ATOM	1783	H2' 1	ADE	86	0.888	-20.567	8.447	1.01	0.08
ATOM	1784	H2' 2	ADE	86	0.377	-21.493	9.887	1.01	0.08
ATOM	1785	O3'	ADE	86	2.538	-21.049	11.334	16.00	-0.51
ATOM	1786	P	CYT	87	2.581	-22.588	11.802	30.97	1.39
ATOM	1787	OP1	CYT	87	2.648	-23.465	10.609	16.00	-0.85
ATOM	1788	OP2	CYT	87	3.632	-22.669	12.841	16.00	-0.85
ATOM	1789	O5'	CYT	87	1.142	-22.767	12.500	16.00	-0.51
ATOM	1790	C5'	CYT	87	0.919	-22.293	13.814	12.01	0.12
ATOM	1791	H5' 1	CYT	87	1.353	-22.985	14.537	1.01	0.02
ATOM	1792	H5' 2	CYT	87	1.400	-21.323	13.928	1.01	0.02
ATOM	1793	C4'	CYT	87	-0.575	-22.110	14.093	12.01	0.04
ATOM	1794	H4'	CYT	87	-0.685	-21.577	15.034	1.01	0.06
ATOM	1795	O4'	CYT	87	-1.185	-21.350	13.068	16.00	-0.37
ATOM	1796	C1'	CYT	87	-2.572	-21.600	13.106	12.01	0.38
ATOM	1797	H1'	CYT	87	-3.009	-21.084	13.962	1.01	0.01
ATOM	1798	N1	CYT	87	-3.220	-21.257	11.811	14.01	-0.19
ATOM	1799	C6	CYT	87	-2.602	-21.577	10.630	12.01	0.18
ATOM	1800	H6	CYT	87	-1.661	-22.101	10.660	1.01	0.10
ATOM	1801	C5	CYT	87	-3.157	-21.290	9.432	12.01	-0.58
ATOM	1802	H5	CYT	87	-2.631	-21.559	8.529	1.01	0.15
ATOM	1803	C4	CYT	87	-4.423	-20.620	9.447	12.01	0.93
ATOM	1804	N4	CYT	87	-5.004	-20.256	8.306	14.01	-0.83
ATOM	1805	H41	CYT	87	-4.542	-20.419	7.416	1.01	0.33
ATOM	1806	H42	CYT	87	-5.887	-19.763	8.332	1.01	0.35
ATOM	1807	N3	CYT	87	-5.036	-20.325	10.602	14.01	-0.86
ATOM	1808	C2	CYT	87	-4.471	-20.640	11.802	12.01	0.86
ATOM	1809	O2	CYT	87	-5.062	-20.366	12.844	16.00	-0.51
ATOM	1810	C3'	CYT	87	-1.385	-23.407	14.205	12.01	0.23
ATOM	1811	H3'	CYT	87	-0.839	-24.254	13.785	1.01	0.03
ATOM	1812	C2'	CYT	87	-2.612	-23.104	13.344	12.01	-0.31
ATOM	1813	H2' 1	CYT	87	-2.520	-23.661	12.416	1.01	0.08
ATOM	1814	H2' 2	CYT	87	-3.539	-23.359	13.838	1.01	0.08
ATOM	1815	O3'	CYT	87	-1.711	-23.629	15.569	16.00	-0.51
ATOM	1816	P	CYT	88	-2.561	-24.912	16.070	30.97	1.39
ATOM	1817	OP1	CYT	88	-2.355	-26.013	15.103	16.00	-0.85
ATOM	1818	OP2	CYT	88	-2.265	-25.125	17.503	16.00	-0.85
ATOM	1819	O5'	CYT	88	-4.092	-24.415	15.941	16.00	-0.51
ATOM	1820	C5'	CYT	88	-4.604	-23.378	16.759	12.01	0.12
ATOM	1821	H5' 1	CYT	88	-4.668	-23.719	17.793	1.01	0.02
ATOM	1822	H5' 2	CYT	88	-3.942	-22.512	16.711	1.01	0.02
ATOM	1823	C4'	CYT	88	-5.995	-22.948	16.277	12.01	0.04
ATOM	1824	H4'	CYT	88	-6.333	-22.100	16.875	1.01	0.06
ATOM	1825	O4'	CYT	88	-5.938	-22.540	14.926	16.00	-0.37

	1001					1002
ATOM	1826	C1' CYT	88	-7.180	-22.806	14.310 12.01 0.38
ATOM	1827	H1' CYT	88	-7.905	-22.042	14.592 1.01 0.01
ATOM	1828	N1 CYT	88	-6.977	-22.952	12.851 14.01 -0.19
ATOM	1829	C6 CYT	88	-5.940	-23.719	12.396 12.01 0.18
ATOM	1830	H6 CYT	88	-5.315	-24.242	13.101 1.01 0.10
ATOM	1831	C5 CYT	88	-5.689	-23.865	11.082 12.01 -0.58
ATOM	1832	H5 CYT	88	-4.863	-24.500	10.824 1.01 0.15
ATOM	1833	C4 CYT	88	-6.561	-23.175	10.175 12.01 0.93
ATOM	1834	N4 CYT	88	-6.349	-23.220	8.859 14.01 -0.83
ATOM	1835	H41 CYT	88	-5.549	-23.699	8.481 1.01 0.33
ATOM	1836	H42 CYT	88	-6.972	-22.702	8.251 1.01 0.35
ATOM	1837	N3 CYT	88	-7.620	-22.489	10.623 14.01 -0.86
ATOM	1838	C2 CYT	88	-7.876	-22.379	11.957 12.01 0.86
ATOM	1839	O2 CYT	88	-8.888	-21.801	12.341 16.00 -0.51
ATOM	1840	C3' CYT	88	-7.047	-24.068	16.331 12.01 0.23
ATOM	1841	H3' CYT	88	-6.576	-25.023	16.563 1.01 0.03
ATOM	1842	C2' CYT	88	-7.557	-24.158	14.897 12.01 -0.31
ATOM	1843	H2' 1 CYT	88	-7.028	-24.978	14.413 1.01 0.08
ATOM	1844	H2' 2 CYT	88	-8.622	-24.338	14.817 1.01 0.08
ATOM	1845	O3' CYT	88	-8.052	-23.696	17.264 16.00 -0.51
ATOM	1846	P CYT	89	-9.351	-24.605	17.575 30.97 1.39
ATOM	1847	OP1 CYT	89	-9.039	-26.007	17.217 16.00 -0.85
ATOM	1848	OP2 CYT	89	-9.819	-24.282	18.941 16.00 -0.85
ATOM	1849	O5' CYT	89	-10.445	-24.054	16.522 16.00 -0.51
ATOM	1850	C5' CYT	89	-11.003	-22.756	16.644 12.01 0.12
ATOM	1851	H5' 1 CYT	89	-11.502	-22.653	17.608 1.01 0.02
ATOM	1852	H5' 2 CYT	89	-10.211	-22.009	16.573 1.01 0.02
ATOM	1853	C4' CYT	89	-12.027	-22.507	15.529 12.01 0.04
ATOM	1854	H4' CYT	89	-12.423	-21.494	15.621 1.01 0.06
ATOM	1855	O4' CYT	89	-11.403	-22.630	14.268 16.00 -0.37
ATOM	1856	C1' CYT	89	-12.297	-23.187	13.327 12.01 0.38
ATOM	1857	H1' CYT	89	-12.949	-22.413	12.921 1.01 0.01
ATOM	1858	N1 CYT	89	-11.492	-23.908	12.308 14.01 -0.19
ATOM	1859	C6 CYT	89	-10.490	-24.744	12.723 12.01 0.18
ATOM	1860	H6 CYT	89	-10.400	-24.976	13.772 1.01 0.10
ATOM	1861	C5 CYT	89	-9.614	-25.291	11.856 12.01 -0.58
ATOM	1862	H5 CYT	89	-8.845	-25.923	12.268 1.01 0.15
ATOM	1863	C4 CYT	89	-9.780	-24.955	10.471 12.01 0.93
ATOM	1864	N4 CYT	89	-8.927	-25.425	9.559 14.01 -0.83
ATOM	1865	H41 CYT	89	-8.167	-26.028	9.833 1.01 0.33
ATOM	1866	H42 CYT	89	-9.031	-25.136	8.594 1.01 0.35
ATOM	1867	N3 CYT	89	-10.801	-24.190	10.058 14.01 -0.86
ATOM	1868	C2 CYT	89	-11.693	-23.669	10.950 12.01 0.86
ATOM	1869	O2 CYT	89	-12.654	-23.020	10.546 16.00 -0.51
ATOM	1870	C3' CYT	89	-13.183	-23.520	15.544 12.01 0.23
ATOM	1871	H3' CYT	89	-13.001	-24.295	16.288 1.01 0.03
ATOM	1872	C2' CYT	89	-13.117	-24.163	14.162 12.01 -0.31
ATOM	1873	H2' 1 CYT	89	-12.623	-25.127	14.266 1.01 0.08
ATOM	1874	H2' 2 CYT	89	-14.095	-24.305	13.719 1.01 0.08
ATOM	1875	O3' CYT	89	-14.402	-22.833	15.791 16.00 -0.51

1003

1004

ATOM	1876	P	THY	90	-15.830	-23.586	15.925	30.97	1.39
ATOM	1877	OP1	THY	90	-15.588	-24.978	16.362	16.00	-0.85
ATOM	1878	OP2	THY	90	-16.738	-22.717	16.706	16.00	-0.85
ATOM	1879	O5'	THY	90	-16.362	-23.625	14.403	16.00	-0.51
ATOM	1880	C5'	THY	90	-16.704	-22.436	13.714	12.01	0.12
ATOM	1881	H5' 1	THY	90	-17.607	-22.003	14.145	1.01	0.02
ATOM	1882	H5' 2	THY	90	-15.890	-21.715	13.796	1.01	0.02
ATOM	1883	C4'	THY	90	-16.933	-22.733	12.229	12.01	0.04
ATOM	1884	H4'	THY	90	-17.118	-21.795	11.702	1.01	0.06
ATOM	1885	O4'	THY	90	-15.777	-23.336	11.682	16.00	-0.37
ATOM	1886	C1'	THY	90	-16.160	-24.221	10.655	12.01	0.38
ATOM	1887	H1'	THY	90	-16.439	-23.654	9.767	1.01	0.01
ATOM	1888	N1	THY	90	-15.055	-25.190	10.428	14.01	-0.22
ATOM	1889	C6	THY	90	-14.557	-25.915	11.483	12.01	0.03
ATOM	1890	H6	THY	90	-15.024	-25.806	12.449	1.01	0.13
ATOM	1891	C5	THY	90	-13.471	-26.711	11.343	12.01	-0.18
ATOM	1892	C7	THY	90	-13.036	-27.494	12.568	12.01	-0.38
ATOM	1893	H71	THY	90	-13.132	-28.559	12.357	1.01	0.11
ATOM	1894	H72	THY	90	-11.993	-27.269	12.790	1.01	0.11
ATOM	1895	H73	THY	90	-13.646	-27.255	13.441	1.01	0.11
ATOM	1896	C4	THY	90	-12.771	-26.811	10.082	12.01	0.81
ATOM	1897	O4	THY	90	-11.750	-27.465	9.890	16.00	-0.46
ATOM	1898	N3	THY	90	-13.343	-26.072	9.057	14.01	-0.85
ATOM	1899	H3	THY	90	-12.917	-26.108	8.139	1.01	0.35
ATOM	1900	C2	THY	90	-14.485	-25.291	9.159	12.01	0.85
ATOM	1901	O2	THY	90	-14.955	-24.748	8.163	16.00	-0.49
ATOM	1902	C3'	THY	90	-18.089	-23.712	11.964	12.01	0.23
ATOM	1903	H3'	THY	90	-18.523	-24.058	12.903	1.01	0.03
ATOM	1904	C2'	THY	90	-17.403	-24.881	11.251	12.01	-0.31
ATOM	1905	H2' 1	THY	90	-17.156	-25.627	12.004	1.01	0.08
ATOM	1906	H2' 2	THY	90	-18.013	-25.346	10.480	1.01	0.08
ATOM	1907	O3'	THY	90	-19.062	-23.061	11.163	16.00	-0.51
ATOM	1908	P	ADE	91	-20.489	-23.731	10.809	30.97	1.39
ATOM	1909	OP1	ADE	91	-20.855	-24.666	11.896	16.00	-0.85
ATOM	1910	OP2	ADE	91	-21.422	-22.649	10.424	16.00	-0.85
ATOM	1911	O5'	ADE	91	-20.155	-24.596	9.493	16.00	-0.51
ATOM	1912	C5'	ADE	91	-19.941	-23.972	8.243	12.01	0.12
ATOM	1913	H5' 1	ADE	91	-20.884	-23.570	7.869	1.01	0.02
ATOM	1914	H5' 2	ADE	91	-19.225	-23.156	8.351	1.01	0.02
ATOM	1915	C4'	ADE	91	-19.383	-24.975	7.231	12.01	0.04
ATOM	1916	H4'	ADE	91	-19.245	-24.469	6.274	1.01	0.06
ATOM	1917	O4'	ADE	91	-18.128	-25.476	7.638	16.00	-0.37
ATOM	1918	C1'	ADE	91	-17.884	-26.624	6.860	12.01	0.38
ATOM	1919	H1'	ADE	91	-17.678	-26.355	5.823	1.01	0.01
ATOM	1920	N9	ADE	91	-16.796	-27.421	7.454	14.01	-0.07
ATOM	1921	C8	ADE	91	-16.642	-27.784	8.766	12.01	0.26
ATOM	1922	H8	ADE	91	-17.387	-27.533	9.509	1.01	0.06
ATOM	1923	N7	ADE	91	-15.533	-28.427	9.016	14.01	-0.54
ATOM	1924	C5	ADE	91	-14.923	-28.516	7.767	12.01	-0.10
ATOM	1925	C6	ADE	91	-13.704	-29.067	7.324	12.01	0.77

	1005					1006		
ATOM	1926	N6	ADE	91	-12.820	-29.631	8.152	14.01 -0.77
ATOM	1927	H61	ADE	91	-11.942	-29.998	7.807	1.01 0.32
ATOM	1928	H62	ADE	91	-13.014	-29.642	9.142	1.01 0.34
ATOM	1929	N1	ADE	91	-13.421	-29.031	6.008	14.01 -0.77
ATOM	1930	C2	ADE	91	-14.291	-28.467	5.174	12.01 0.66
ATOM	1931	H2	ADE	91	-14.018	-28.463	4.130	1.01 -0.03
ATOM	1932	N3	ADE	91	-15.445	-27.879	5.468	14.01 -0.73
ATOM	1933	C4	ADE	91	-15.706	-27.936	6.801	12.01 0.55
ATOM	1934	C3'	ADE	91	-20.249	-26.229	7.029	12.01 0.23
ATOM	1935	H3'	ADE	91	-20.885	-26.410	7.896	1.01 0.03
ATOM	1936	C2'	ADE	91	-19.214	-27.358	6.962	12.01 -0.31
ATOM	1937	H2' 1	ADE	91	-19.263	-27.930	7.890	1.01 0.08
ATOM	1938	H2' 2	ADE	91	-19.343	-28.022	6.114	1.01 0.08
ATOM	1939	O3'	ADE	91	-21.012	-26.056	5.845	16.00 -0.51
ATOM	1940	P	ADE	92	-21.970	-27.203	5.230	30.97 1.39
ATOM	1941	OP1	ADE	92	-22.397	-28.103	6.324	16.00 -0.85
ATOM	1942	OP2	ADE	92	-22.984	-26.546	4.376	16.00 -0.85
ATOM	1943	O5'	ADE	92	-20.960	-28.015	4.270	16.00 -0.51
ATOM	1944	C5'	ADE	92	-20.332	-27.382	3.171	12.01 0.12
ATOM	1945	H5' 1	ADE	92	-21.080	-27.121	2.421	1.01 0.02
ATOM	1946	H5' 2	ADE	92	-19.830	-26.472	3.503	1.01 0.02
ATOM	1947	C4'	ADE	92	-19.284	-28.305	2.543	12.01 0.04
ATOM	1948	H4'	ADE	92	-18.804	-27.776	1.718	1.01 0.06
ATOM	1949	O4'	ADE	92	-18.296	-28.651	3.502	16.00 -0.37
ATOM	1950	C1'	ADE	92	-17.923	-29.997	3.306	12.01 0.38
ATOM	1951	H1'	ADE	92	-17.264	-30.084	2.441	1.01 0.01
ATOM	1952	N9	ADE	92	-17.296	-30.543	4.529	14.01 -0.07
ATOM	1953	C8	ADE	92	-17.803	-30.565	5.804	12.01 0.26
ATOM	1954	H8	ADE	92	-18.786	-30.195	6.049	1.01 0.06
ATOM	1955	N7	ADE	92	-17.001	-31.073	6.697	14.01 -0.54
ATOM	1956	C5	ADE	92	-15.880	-31.424	5.956	12.01 -0.10
ATOM	1957	C6	ADE	92	-14.657	-32.024	6.308	12.01 0.77
ATOM	1958	N6	ADE	92	-14.379	-32.361	7.568	14.01 -0.77
ATOM	1959	H61	ADE	92	-13.493	-32.793	7.796	1.01 0.32
ATOM	1960	H62	ADE	92	-15.061	-32.176	8.287	1.01 0.34
ATOM	1961	N1	ADE	92	-13.747	-32.260	5.344	14.01 -0.77
ATOM	1962	C2	ADE	92	-14.041	-31.911	4.093	12.01 0.66
ATOM	1963	H2	ADE	92	-13.301	-32.168	3.351	1.01 -0.03
ATOM	1964	N3	ADE	92	-15.153	-31.344	3.632	14.01 -0.73
ATOM	1965	C4	ADE	92	-16.049	-31.116	4.631	12.01 0.55
ATOM	1966	C3'	ADE	92	-19.872	-29.632	2.037	12.01 0.23
ATOM	1967	H3'	ADE	92	-20.963	-29.626	2.078	1.01 0.03
ATOM	1968	C2'	ADE	92	-19.282	-30.635	3.029	12.01 -0.31
ATOM	1969	H2' 1	ADE	92	-19.897	-30.637	3.929	1.01 0.08
ATOM	1970	H2' 2	ADE	92	-19.203	-31.647	2.637	1.01 0.08
ATOM	1971	O3'	ADE	92	-19.431	-29.843	0.706	16.00 -0.51
ATOM	1972	P	CYT	93	-19.956	-31.073	-0.198	30.97 1.39
ATOM	1973	OP1	CYT	93	-21.050	-31.764	0.519	16.00 -0.85
ATOM	1974	OP2	CYT	93	-20.173	-30.580	-1.576	16.00 -0.85
ATOM	1975	O5'	CYT	93	-18.679	-32.049	-0.208	16.00 -0.51

1007				1008			
ATOM	1976	C5' CYT	93	-17.526	-31.742	-0.971	12.01 0.12
ATOM	1977	H5' 1 CYT	93	-17.770	-31.737	-2.034	1.01 0.02
ATOM	1978	H5' 2 CYT	93	-17.144	-30.761	-0.685	1.01 0.02
ATOM	1979	C4' CYT	93	-16.447	-32.793	-0.704	12.01 0.04
ATOM	1980	H4' CYT	93	-15.531	-32.540	-1.241	1.01 0.06
ATOM	1981	O4' CYT	93	-16.177	-32.824	0.678	16.00 -0.37
ATOM	1982	C1' CYT	93	-15.733	-34.111	1.037	12.01 0.38
ATOM	1983	H1' CYT	93	-14.683	-34.208	0.757	1.01 0.01
ATOM	1984	N1 CYT	93	-16.003	-34.322	2.480	14.01 -0.19
ATOM	1985	C6 CYT	93	-17.199	-33.919	3.020	12.01 0.18
ATOM	1986	H6 CYT	93	-17.950	-33.486	2.377	1.01 0.10
ATOM	1987	C5 CYT	93	-17.466	-34.052	4.337	12.01 -0.58
ATOM	1988	H5 CYT	93	-18.421	-33.701	4.696	1.01 0.15
ATOM	1989	C4 CYT	93	-16.432	-34.630	5.150	12.01 0.93
ATOM	1990	N4 CYT	93	-16.568	-34.704	6.475	14.01 -0.83
ATOM	1991	H41 CYT	93	-17.403	-34.361	6.924	1.01 0.33
ATOM	1992	H42 CYT	93	-15.779	-35.023	7.025	1.01 0.35
ATOM	1993	N3 CYT	93	-15.278	-35.047	4.614	14.01 -0.86
ATOM	1994	C2 CYT	93	-15.032	-34.917	3.280	12.01 0.86
ATOM	1995	O2 CYT	93	-13.969	-35.317	2.813	16.00 -0.51
ATOM	1996	C3' CYT	93	-16.896	-34.217	-1.062	12.01 0.23
ATOM	1997	H3' CYT	93	-17.966	-34.261	-1.264	1.01 0.03
ATOM	1998	C2' CYT	93	-16.598	-35.043	0.187	12.01 -0.31
ATOM	1999	H2' 1 CYT	93	-17.542	-35.266	0.685	1.01 0.08
ATOM	2000	H2' 2 CYT	93	-16.073	-35.972	-0.037	1.01 0.08
ATOM	2001	O3' CYT	93	-16.162	-34.710	-2.164	1.01 -0.51
ATOM	2002	H03' CYT	93	-16.489	-35.586	-2.379	1.01 0.31
TER							
END							

【0069】引用文献

- Archer, S. J., Ikura, M., Torchia, D. A., and Bax, A., (1991). An alternative 3D NMR technique for correlating backbone ¹⁵N with side chain ¹H (resonances in larger proteins. *J. Magn. Reson.* 95, 636-641.
- Bianchi, A., Smith, S., Chong, L., Elias, P., and de Lange, T. (1997). TRF1 is a dimer and bends telomeric DNA. *EMBO J.* 16, 1785-1794.
- Bianchi, A., Stansel, R. M., Fairall, L., Griffith, J. D., Rhodes, D., and de Lange, T. (1999). TRF1 binds a bipartite telomeric site with extreme spatial flexibility. *EMBO J.* 18, 5735-5744.
- Bilaud, T., Brun, C., Ancelin, K., Koering, C. E., Laroche, T., and Gilson, E. (1997). Telomeric localization of TRF2, a novel human telobox protein. *Nature Genet.* 17, 236-239.
- Billeter, M., Qian, Y., Q., Otting, G., Moller, M., Gehring, W. and W. Hrich, K. (1993). Determination of the NMR solution structure of an Antennapedia homeodomain-DNA complex. *J. Mol. Biol.* 234, 10
- Blackburn, E.H. (1992). Structure and function of telomeres. *Nature* 350,569-573.
- Blackburn, E.H. (1994). Telomeres: No end in sight. *Cell* 77, 621-623.
- Broccoli, D., Smogorzewska, A., Chong, L., and de Lange, T. (1997). Human telomeres contain two distinct Myb-related proteins, TRF1 and TRF2. *Nature Genet.* 17, 231-235.
- Brun, C., Marcand, S., and Gilson, E. (1997). Proteins that bind to double-stranded regions of telomeric DNA. *Trends Cell Biol.* 7, 317-324.
- Chong, L., van Steensel, B., Broccoli, D., Erdjument-Bromage, H., Hanish, J., Tempst, P., and de Lange, T. (1995). A human telomeric protein. *Science* 270, 1663-1667.
- Cooper, J. P., Nimmo, E. R., Allshire, R. C., and Cech, T. R. (1997). Regulation of telomere length and function by a Myb-domain protein in fission yeast. *Nature* 385, 744-747.
- Delaglio, F., Grzesiek, S., Vuister, G. W., Zhu,

30 84-1093.

40

50

- G., Pfeifer, J., and Bax, A. (1995). NMRPipe: A multidimensional spectral processing system based on UNIX PIPES. *J. Biomol. NMR* 6, 277-293.
- Foster, M.P., Wuttke, D.S., Radhakrishnan, I., Case, D.A., Gottesfeld, J.M. and Wright, P.E. (1997). Domain packing and dynamics in the DNA complex of the N-terminal zinc fingers of TFIIIA. *Nat. Struct. Biol.* 4, 605-608.
- Fraenkel, E. and Pabo, C.O. (1998). Comparison of X-ray and NMR structures for the Antennapedia homeodomain-DNA complex. *Nature Struct. Biol.* 5, 692-697.
- Garret, D.S., Powers, R., Gronenborn, A.M. and Clore, G.M. (1991). A common sense approach to peak picking in two-, three-, and four-dimensional spectra using automatic computer analysis of contour diagrams. *J. Magn. Reson.* 99, 214-220.
- Gehring, W.J., Qian, Y.Q., Billeter, M., Furukubo-Tokunaga, K., Schier, A.F., Resendez-Perez, D., Affolter, M., Otting, G. and Wüthrich, K. (1994). Homeodomain-DNA recognition. *Cell* 78, 211-223.
- Gerchman, S.E., Graziano, V. and Ramakrishnan, V. (1994). Protein Expression Purification. 5, 242-251.
- Griffith, J., Bianchi, A., and de Lange, T. (1997). TRF1 promotes parallel pairing of telomeric tracts in vitro. *J. Mol. Biol.* 278, 79-88.
- Grzesiek, S. and Bax, A., (1992a). Improved three-dimensional triple resonance NMR techniques applied to a 31 kDa protein. *J. Mag. Res.* 96, 432-440.
- Grzesiek, S., and Bax, A., (1992b). Correlating backbone amide and sidechain resonances in larger proteins by multiple relayed triple resonance NMR. *J. Am. Chem. Soc.* 114, 6291-6293.
- Grzesiek, S., Anglister, J., and Bax, A., (1993). Correlation of backbone amide and aliphatic sidechain resonances in $^{13}\text{C}/^{15}\text{N}$ -enriched proteins by isotropic mixing of ^{13}C magnetization. *J. Magn. Reson. B* 101, 114-119.
- Henry, Y.A.L., Chambers, A., Tsang, J.S.H., Kingsman, A.J. and Kingsman, S.M. (1990). Characterisation of the DNA binding domain of the yeast RAP1 protein. *Nucleic Acids Res.* 18, 2617-2623.
- Kay, L. E., Xu, G. -Y., Singer, A. U., Muhandiram, D. R., and Forman-Kay, J. D. (1993). A gradient-enhanced HCC-H-TOCSY experiment for recording side-chain ^1H and ^{13}C correlations in H_2O samples of protein. *J. Magn. Reson. (B)* 101, 333-337.
- Kissinger, C.R., Liu, B., Martin-Blanco, E., Kornberg, T.B. and Pabo, C.O. (1990). Crystal structure of an engrailed homeodomain-DNA complex at 2.8 angstrom resolution: a framework for understanding homeodomain-DNA interactions. *Cell* 63, 579-590.
- Klein, F., Laroche, T., Cardenas, M.E., Hofmann, J.F.-X., Schweizer, D. and Gasser, S.M. (1992). Localization of RAP1 and topoisomerase II in nuclei and meiotic chromosomes of yeast. *J. Cell. Biol.* 177, 935-948.
- Klemm, J.D., Rould, M.A., Aurora, W.H. and Pabo, C.O. (1994). Crystal structure of the Oct-1 POU domain bound to an Octamer site: DNA recognition with tethered DNA-binding modules. *Cell* 77, 21-32.
- Konig, P., Giraldo, G., Chapman, L., and Rhodes, D. (1996). The crystal structure of the DNA-binding domain of yeast RAP1 in complex with telomeric DNA. *Cell* 85, 125-136.
- Konig, P. and Rhodes, D. (1997). Recognition of telomeric DNA. *TIBS* 22, 43-47.
- Konig, P., Fairall, L. and Rhodes, D. (1998). Sequence-specific DNA recognition by the Myb-like domain of the human telomere binding protein TRF1: a model for protein-DNA complex. *Nucl. Acids Res.* 26, 1731-1740.
- Koradi, R., Billeter, M., and Wüthrich, K. (1996). MOLMOL: a program for display and analysis of macromolecular structures. *J. Mol. Graph.* 14, 52-55.
- Krauskopf, A. and Blackburn, E.H. (1996). Control of telomeric growth by interactions of RAP1 with the most distal telomeric repeats. *Nature* 383, 354-357.
- Laskowski, R.A., Rullmann, J.A.C., MacArthur, M. W., Kaptein, R. and Thornton, J.M. (1996). AQUA and PROCHECK-NMR: programs for checking the quality of protein structures solved by NMR. *J. Biomol. NMR* 8, 477-486.
- Lipsick, J. S. (1996). One billion years of Myb. *Oncogene* 13, 223-235.
- Martin, C., and Paz-Ares, J. (1997). MYB transcription factors in plants. *Trends Genet.* 13, 67-73.
- Mucenski, M.L., McLain, K., Kier, A.B., Swerdlow, S.H., Schreiner, C.M., Miller, T.A., Pietryga, D. W., Scott, W.J. and Potter, S.S. (1991). A functional c-myc gene is required for normal murine fetal hepatic hematopoiesis. *Cell* 65, 677-689.
- Nakai, T., Kidera, A., and Nakamura, H. (1993). Intrinsic nature of the three-dimensional structure of proteins as determined by distance geometry with good sampling properties. *J. Biomol. NMR* 3, 19-40.
- Nicholls, A., Sharp, K. A. and Honig, B. (1991). Protein folding and association: insights from the

interfacial and thermodynamic properties of hydrocarbons. *Proteins* 11, 281-296.

Nishikawa, T., Nagadoi, A., Yoshimura, S., Aimoto, S. and Nishimura, Y. (1998). Solution structure of the DNA-binding domain of human telomeric protein, hTRF1. *Structure* 6, 1057-1065.

Ogata, K., Hojo, H., Aimoto, S., Nakai, T., Nakamura, H., Sarai, A., Ishii, S. and Nishimura, Y. (1992). Solution structure of a DNA-binding unit of Myb: a helix-turn-helix-related motif with conserved tryptophans forming a hydrophobic core. *Proc. Natl. Acad. Sci. USA* 89, 6428-6432.

Ogata, K., Morikawa, S., Nakamura, H., Sekikawa, A., Inoue, T., Kanai, H., Sarai, A., Ishii, S. and Nishimura, Y. (1994). Solution structure of a specific DNA complex of the Myb DNA-binding domain with cooperative recognition helices. *Cell* 79, 639-648.

Ogata, K., Morikawa, S., Nakamura, H., Hojo, H., Yoshimura, S., Zhang, R., Aimoto, S., Ametani, Y., Hirata, Z., Sarai, A., Ishii, S. and Nishimura, Y. (1995). Comparison of the free and DNA-complexed forms of the DNA-binding domain from c-Myb. *Nature Struct. Biol.* 2, 309-320.

Ogura, K., Terasawa, H., and Inagaki, F. (1996). An improved double-tuned and isotope-filtered pulse scheme based on a pulsed field gradient and a wide-band inversion shaped pulse. *J. Biomol. NMR* 8, 492-498.

Passner, J.M., Ryoo, H.D., Shen, L., Mann, R.S. and Aggarwal, A.K. (1999). Structure of a DNA-bound Ultrabithorax-Extradenticle homeodomain complex. *Nature* 397, 714-719.

Qian, Y.Q., Billeter, M., Otting, G., Moller, M., Gehring, W., and Wuthrich, K. (1989). The structure of the Antennapedia homeodomain determined by NMR spectroscopy in solution: comparison with prokaryotic repressors. *Cell* 59, 573-580.

Saenger, W. (1984). *Principles of nucleic acid structure* (New York: Springer Verlag).

Shore, D., and Nasmyth, K. (1987). Purification and cloning of a DNA binding protein from yeast that binds to both silencer and activator elements. *Cell* 51, 721-732.

Smogorzewska, A., van Steensel, B., Bianchi, A., O*

*elmann, S., Schaefer, M. R., Schnapp, G., and de Lange, T. (2000). Control of human telomere length by TRF1 and TRF2. *Mol Cell. Biol.* 20, 1659-1668.

Tanikawa, J., Yasukawa, T., Enari, M., Ogata, K., Nishimura, Y., Ishii, S., and Sarai, A. (1993). Recognition of specific DNA sequences by the c-myc proto-oncogene product: role of three repeat units in the DNA-binding domain. *Proc. Natl. Acad. Sci. USA* 90, 9320-9324.

10 Taylor, H.O.B., O'Reilly, M., Leslie, A.G.W., and Rhodes, D. (2000). How the multifunctional yeast Rap1 discriminates between DNA target sites: A crystallographic Analysis. *J. Mol. Biol.* 303, 693-707.

van Steensel, B., and de Lange, T. (1997). Control of telomere length by the human telomeric protein TRF1. *Nature* 385, 740-743.

Vuister, G. W. and Bax, A., (1993). Quantitative J correlation: a new approach for measuring homonuclear three bond J-(HN-HC) coupling constants in 15N-enriched protein. *J. Am. Chem. Soc.*, 115, 7772-7777.

Wilson, D.S., Guenther, B., Desplan, C. and Kuriyan, J. (1995). High resolution crystal structure of a Paired (PAX) class cooperative homeodomain dimer on DNA. *Cell* 82, 709-719.

Wolberger, C., Vershon, A.K., Liu, B., Johnson, A. D. and Pabo, C.O. (1991). Crystal structure of a M AT(2) homeodomain-operator complex suggests a general model for homeodomain-DNA interactions. *Cell* 67, 517-528.

Yu, E.Y., Kim, S.E., Kim, J.H., Ko, J.H., Cho, M. H. and Chung, I.K. (2000). Sequence-specific DNA recognition by the Myb-like domain of plant telomeric protein RTBP1. *J. Biol. Chem.* 275, 24208-24214.

Zakian, V. A. (1995). Telomeres: beginning to understand the end. *Science* 270, 1601-1607.

【0070】

【発明の効果】本発明により、テロメアDNAに結合したヒトTRF1のDNA結合ドメインの立体構造が明らかになった。これにより、テロメアDNAに結合して生理活性を奏する薬物などの有用な物質を得ることができるようになった。

【0071】

【配列表】

SEQUENCE LISTING

<110> Nishimura, Yoshifumi

<120> Use of steric structure of telomeric DNA complex of human TRF1

<130> P01-051

<140>

<141>

<160> 20

<170> PatentIn Ver. 2.1

<210> 1

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 1

gttagggtta gg

12

<210> 2

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 2

gttagggtta ggg

13

<210> 3

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 3

gtaagggtta ggg

13

<210> 4

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 4

gttagggtaa ggg

13

<210> 5

<211> 13

<212> DNA

1015

1016

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 5

gttagggttt ggg

13

<210> 6

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 6

gttggggtta ggg

13

<210> 7

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 7

gttagggata ggg

13

<210> 8

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 8

gttaggggta ggg

13

<210> 9

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 9

gttagggcta ggg

13

<210> 10

<211> 13

1017

1018

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 10

gttaggtga ggg

13

<210> 11

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 11

gttaggtca ggg

13

<210> 12

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 12

gtaagggtaa ggg

13

<210> 13

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 13

gtttgggtta ggg

13

<210> 14

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 14

gttacgtta ggg

13

<210> 15

1019

1020

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 15

gtagcgta ggg

13

<210> 16

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 16

gtaggcta ggg

13

<210> 17

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 17

gtttgggtt ggg

13

<210> 18

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 18

gttcgggttc ggg

13

<210> 19

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 19

gttgggttg ggg

13

<210> 20

1021

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 20

actgtcataa atc

【0072】

【配列表フリーテキスト】

【配列番号1】配列番号1は、テロメアDNA中に存在 10
するヌクレオチド配列を示す。

【配列番号2】配列番号2は、野生型13mer DNAのヌク
レオチド配列を示す。

【配列番号3】配列番号3は、DNA変異体T3Aのヌクレオ
チド配列を示す。

【配列番号4】配列番号4は、DNA変異体T9Aのヌクレオ
チド配列を示す。

【配列番号5】配列番号5は、DNA変異体A10Tのヌクレ
オチド配列を示す。

【配列番号6】配列番号6は、DNA変異体A4Gのヌクレオ 20
チド配列を示す。

【配列番号7】配列番号7は、DNA変異体T8Aのヌクレオ
チド配列を示す。

【配列番号8】配列番号8は、DNA変異体T8Gのヌクレオ
チド配列を示す。

【配列番号9】配列番号9は、DNA変異体T8Cのヌクレオ
チド配列を示す。

【配列番号10】配列番号10は、DNA変異体T9Gのヌク
レオチド配列を示す。

【配列番号11】配列番号11は、DNA変異体T9Cのヌク 30
レオチド配列を示す。

【配列番号12】配列番号12は、DNA変異体T3AT9Aの
ヌクレオチド配列を示す。

【配列番号13】配列番号13は、DNA変異体A4Tのヌク
レオチド配列を示す。

【配列番号14】配列番号14は、DNA変異体G5Cのヌク
レオチド配列を示す。

【配列番号15】配列番号15は、DNA変異体G6Cのヌク
レオチド配列を示す。

【配列番号16】配列番号16は、DNA変異体G7Cのヌク 40
レオチド配列を示す。

【配列番号17】配列番号17は、DNA変異体A4TA10Tの
ヌクレオチド配列を示す。

【配列番号18】配列番号18は、DNA変異体A4CA10Cの
ヌクレオチド配列を示す。

【配列番号19】配列番号19は、DNA変異体A4GA10Gの
ヌクレオチド配列を示す。

【配列番号20】配列番号20は、非特異的13mer DNA
のヌクレオチド配列を示す。

【図面の簡単な説明】

1022

13

【図1】(a)ヒトTRF1、マウスTRF1、ヒトTRF2、マウスTRF2、RTBP1、Taz1p及びRap1pの2つのサブドメインのDNA結合ドメイン、及びc-Myb DNA結合ドメインの3つのリピートの配列を並べたもの。疎水的コアに含まれていて、非常によく保存されたアミノ酸は陰影をつけたボックスで囲まれている。3つの典型的な保存されたトリプトファンは陰影をつけたボックス中のWで示されていて（完全に同一ではないけれども、似ているのは、陰影をつけたボックス中のフェニルアラニン（F）及びチロシン（Y）である）、2つの極性残基（それは、分子内で塩橋を作っている）は配列の上の線で結ばれているが、それは陰影をつけたボックス中のグルタミン酸（E（白抜き以外のもの）及びアルギニン（R））である（完全に同一ではないけれども、似ているのは、陰影をつけたボックス中のグルタミン酸（E（白抜きのもの））およびリシン（K）である）。3つのヘリックスの領域はアンダーラインで示している。DNA塩基と相互作用するアミノ酸は黒丸で示してあって、糖リン酸骨格と相互作用するアミノ酸は白三角で示してあって、両方と相互作用するアミノ酸は黒三角で示してある。(b) DNA二重鎖の配列。ここで使用した番号付けを示している。(c) ¹³Cと¹⁵Nで二重に標識したDNA結合ドメインと非標識DNAとの複合体中の3次元¹³C編集(F1)、¹³Cフィルター(F3) HSQC-NOESYスペクトル。

【図2】ヒトTRF1のDNA結合ドメインの構造。(a) 20個のDNA結合ドメインが13merのDNAに結合したNMRの構造を重ね描きで示したものの。DNA結合ドメインの骨格原子(N, C_α, C_β)、アミノ酸Arg378番～Ser435番はグレーで示されていて、DNAのすべての重原子は黒で示されている。(b) DNAに結合した状態の20個のNMR構造のタンパク質部分の重ね描きを前と後ろから見た図。(c) DNAフリーのときの25個のNMR構造の重ね描きで前と後ろから見た図。(d) DNAフリーのとき(白丸)及びDNAに結合したとき(黒四角)の異核種NOEの値が示されている。3つのヘリックスの領域は円筒上で下の方に示されている。この図はプログラムSYBYL(Tripos Inc., St. Louis, MO)を使って描いた。

【図3】TRF1 DNA結合ドメインのDNA認識を示している。(a) DNA複合体中で観測された分子間の接触のまとめ。黒い矢印は親水的な相互作用を示し、破線の矢印は疎水的な相互作用を示している。DNAと相互作用するアミノ酸は、20個のNMR構造の中で、70%以上接触している場合を黒で、30～70%で接触している場合

をグレーで描いてある。両者の色が混じっているところは、両方の相互作用が見えていることを意味する。

(b) DNAの小さな溝での相互作用を示している。Arg380番の側鎖、タンパク質の骨格の一部、及びDNA構造の平均が示されている。左はタンパク質部分の構造の集合体で、右はタンパク質部分の平均構造を示している。タンパク質の骨格及びDNA及び塩基を示したが、分子間相互作用に係わるアミノ酸を除いてある。(c) DNAの大きな溝におけるLys 421番の相互作用を示している。この図はプログラムSYBYL(Tripos Inc., St. Louis, MO)を用いて作られている。

【図4】DNA結合ドメインと19種類の13mer DNA分子との滴定実験。低磁場側のプロトンのスペクトルには、DNA中の塩基対を形成しているイミノプロトン、さらに、Trp 403番のイミノプロトンの低磁場シフトしたものが示されている((a)-(d))。タンパク質とDNAのモル比は、各々のスペクトルの上に示してある。(a) 野生型13mer DNA (wt) (その配列は図1(b)に示してある)の滴定実験。(b) 10番目の位置をAからTに置換したDNA変異体(A10T)に対する滴定実験。(c) 4番目の位置をAからTに置換したDNA変異体(A4T)に対する滴定実験。(d) 非特異的13mer DNA二重鎖(ns)の滴定実験。(e) 19種類のDNA分子の結合親和性の要約。グループ1の野生型は、図5(a)に示すように最も強いDNA結合活性を持っていて、グループ2の3つの変異体は、図5(b)に示すようにかなり特異的な結合活性をまだ保持していて、グループ3のすべての変異体は、図5(c)に示すように特異的なDNA結合活性をなくして、グループ4の非特異的DNAは図5

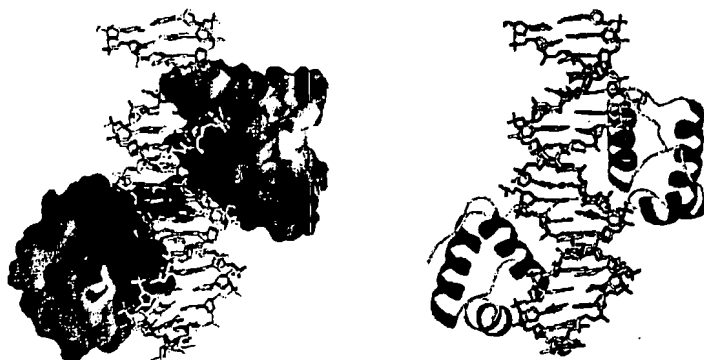
(d)に示すように結合活性をなくしている。ここで使*30

* 用いたDNAの配列は以下の通りである。wt: GTTAGCGTTAGG (配列番号2), T3A: GTAAGGTTAGG (配列番号3), T9A: GTTAGGTAAGG (配列番号4), A10T: GTTAGGTTTGG (配列番号5), A4G: GTTGGGTTAGG (配列番号6), T8A: GTTAGGATAGG (配列番号7), T8G: GTTAGGGTAGG (配列番号8), T8C: GTTAGGGTAGG (配列番号9), T9G: GTTAGGCTAGG (配列番号10), T9C: GTTAGGCTAGG (配列番号11), T3AT9A: GTAAGGTAAGG (配列番号12), A4T: GTTGGGTTAGG (配列番号13), G5C: GTTAGGTTAGG (配列番号14), G6C: GTTAGGTTAGG (配列番号15), G7C: GTTAGGTTAGG (配列番号16), A4TA10T: GTTGGGTTTGG (配列番号17), A4CA10C: GTTGGGTTTGG (配列番号18), A4G A10G: GTTGGGTTTGG (配列番号19), ns13: ACTGTCA TAAATC (配列番号20)。

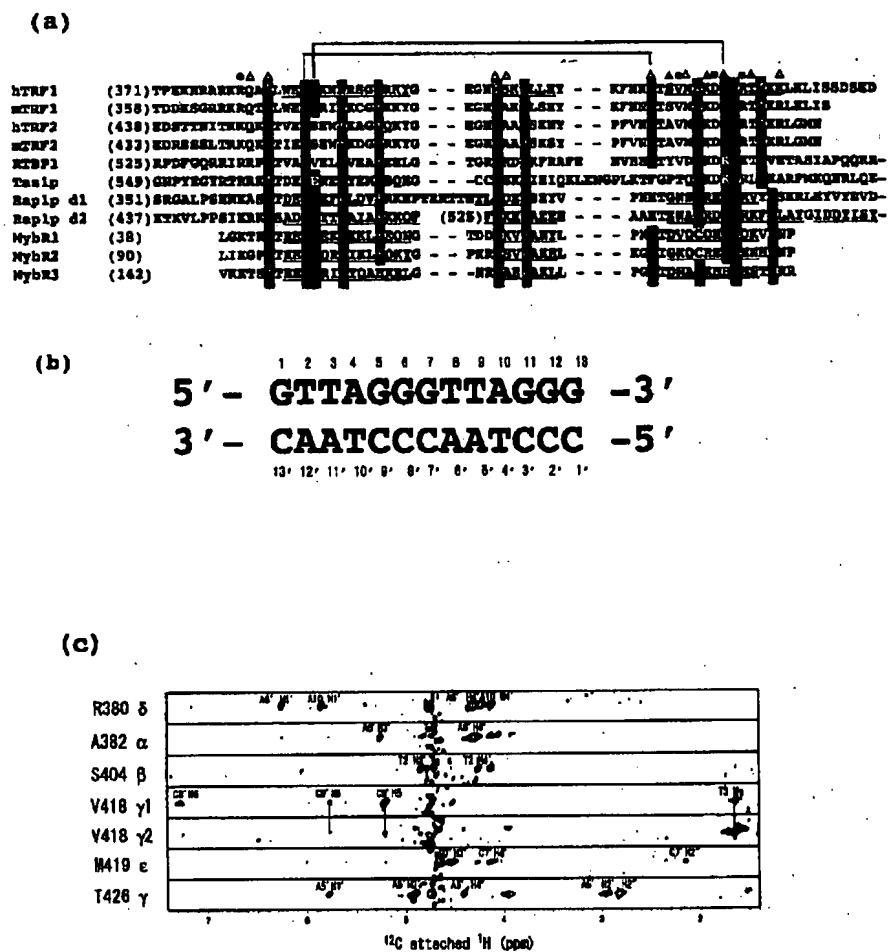
【図5】グレーで示したTRF1のDNA結合ドメインのDNAに対するDNA結合の配向の構造比較で、(a) c-MybのR2は黒で、(b) Rap1pのD1は黒で、(c) エンゲイルドホメオドメインは黒で示した。各々の図で、各々のタンパク質で覆われているDNAの部分のリン酸原子が重ね描きで示してある。この図はプログラムMOLMOL(Koradi et al., 1996)を使って作った。

【図6】TRF1の2つのDNA結合ドメインがテロメアDNA(右)に結合しているモデル構造及びそのときのタンパク質部分の静電的なポテンシャル表面(左)。2つのDNA結合ドメインは各々の中心から6塩基対離れて結合し、DNAの反対側に結合している。この図はプログラムMOLMOL(Koradi et al., 1996)及びGRASP(Nicholls et al., 1991)を使って作った。

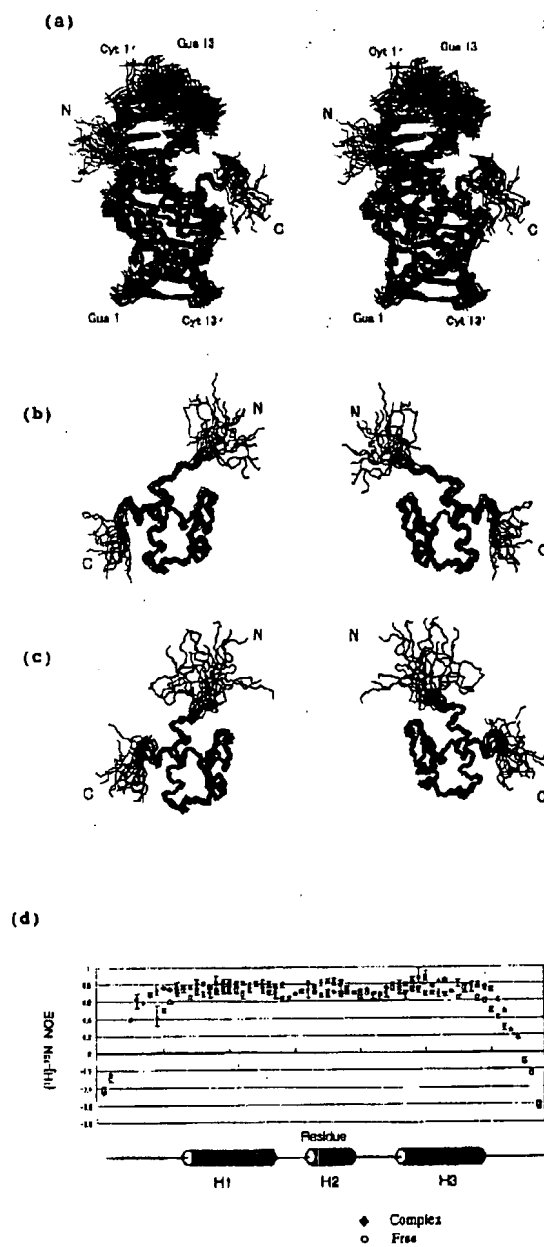
【図6】



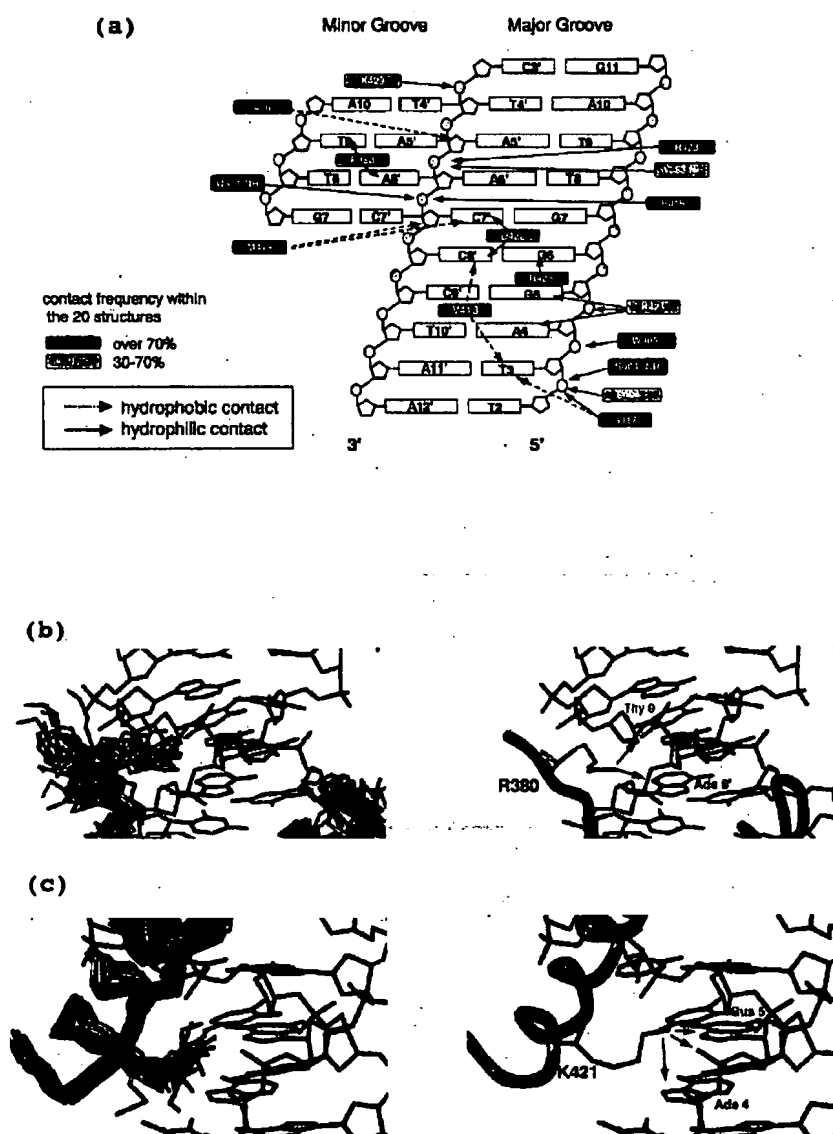
【図1】



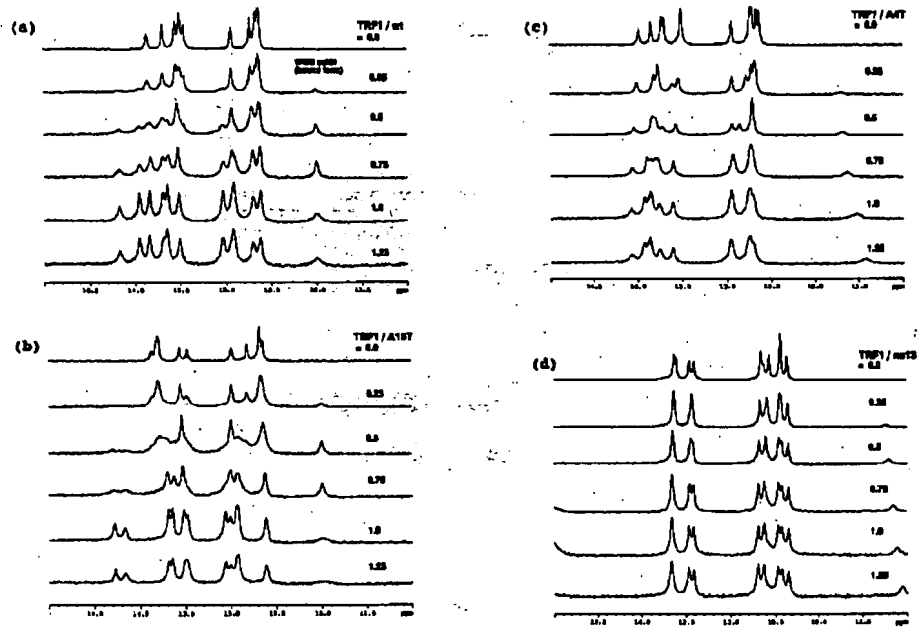
【図2】



【図3】



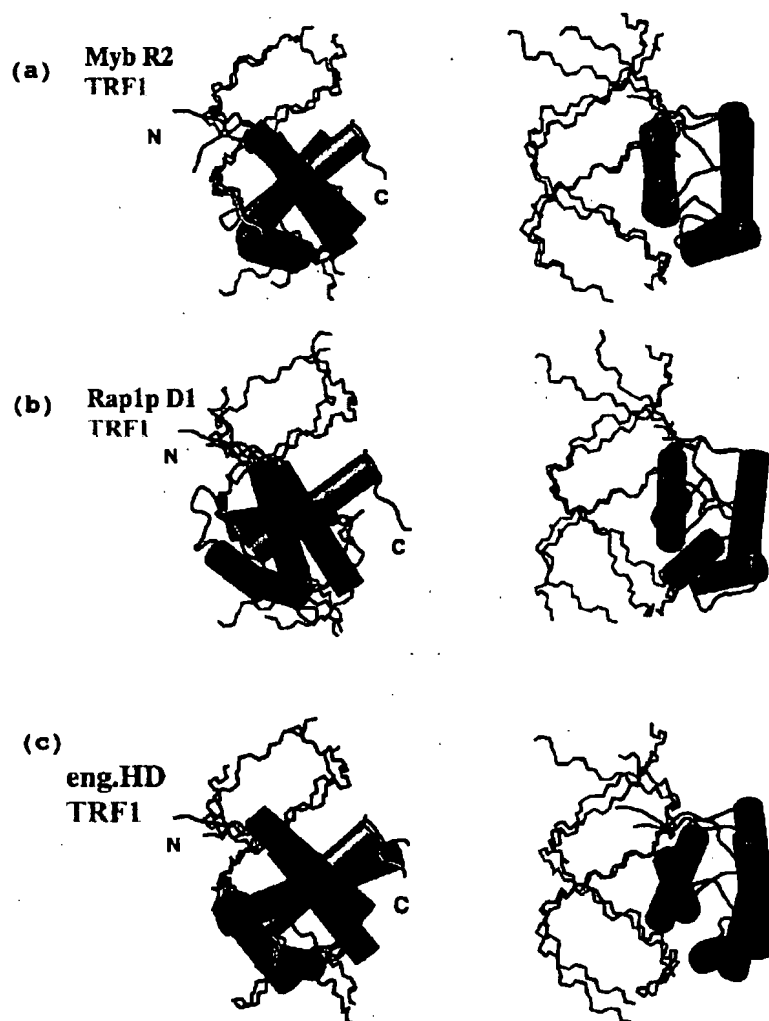
【図4】



(e)

slow → fast									
group 1		2		3		4			
wt	//	T3A	//	A4G	A4T	//	ns13		
		T9A		T8A	G5C				
		A10T		T8G	G6C				
				T8C	G7C				
				T9G	A4TA10T				
				T9C	A4CA10C				
				T3AT9A	A4GA10G				

【図5】



フロントページの続き

(51)Int.Cl.⁷

G 0 1 N 33/53
33/566

識別記号

F I

G 0 1 N 33/566
C 1 2 N 15/00

テーマコード(参考)

Z T D A